

OUR TECHNOLOGY ADVANCES, CONNECTED WITH **NEW WAVE**











About This Report

In 2025, Hanwha Advanced Materials published its first Sustainability Report to transparently disclose our environmental, social, and governance (ESG) initiatives and performance, and to engage constructively with a broad range of stakeholders.

Reporting Standards

This report has been prepared in accordance with the GRI Standards 2021 and also references the UN Global Compact Ten Principles and the UN Sustainable Development Goals (SDGs). Financial information is presented in accordance with Korean International Financial Reporting Standards (K-IFRS).

Reporting Period and Cycle

This report covers financial, environmental, and social performance from January 1, 2024, to December 31, 2024. Certain performance data include information up to the first half of 2025. To ensure comparability and support trend analysis, quantitative performance includes figures from the past three years. The report is published annually and is set to be released on September 15, 2025.

Reporting Scope

Financial performance is reported on a consolidated basis. Non-financial performance is presented on a separate entity basis and covers key domestic sites, including the headquarters, Sejong plant, and Eumseong plant. For indicators with differing boundaries, additional explanatory notes are provided.

Report Assurance

To enhance credibility, the report underwent independent external assurance by Korea Management Registrar (KMR) in accordance with the AA1000AS assurance standard. Details are available in the assurance statement on page 81 of this report.

Inquiries

For inquiries regarding this report, please refer to the contact information provided below. Hanwha Advanced Materials, Management Innovation Team E-mail: esg_hamc@hanwha.com

INTERACTIVE USER GUIDE

Hanwha Advanced Materials' Sustainability Report has been prepared as an interactive PDF, enabling related website and video access to better help understand the content of this report.



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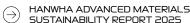
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Introduction

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

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CEO Message

Dear Stakeholders.

Hello, this is In Hwan Kim, the CEO of Hanwha Advanced Materials.

I extend my sincere appreciation for your continued support and trust in Hanwha Advanced Materials.

In a rapidly evolving global environment, we are facing an intensifying climate crisis and multifaceted economic risks. Consequently, ESG management is no longer optional but an essential part in fostering corporate resilience and sustainable growth.

To respond responsibly to such changes and help shape a sustainable future, we have published our first Sustainability Report this year. Through systematic and transparent ESG disclosure, we aim to reinforce trust with all stakeholders.

Throughout the years Hanwha Advanced Materials has been performing various activities in order to further internalize ESG management within the company. We established a Life Cycle Assessment (LCA) system at our domestic sites to quantify and manage product-level greenhouse gas (GHG) emissions and environmental impacts along with developing a company-wide Sustainability Council and a Carbon Reduction Committee to underpin strategic execution.

Notably, we voluntarily participated in Carbon Disclosure Project (CDP) to proactively address global climate issues and, in May 2025, were honored with a Carbon Management Special Award in recognition of our efforts. Furthermore, we are also refining internal policies to enhance ESG governance and striving to establish global standards of conduct. By systematizing company-wide ESG management, including overseas subsidiaries, we are steadily building the foundation for sustainable value creation.

This report transparently shares Hanwha Advanced Materials' efforts and achievements to date, as well as the challenges ahead, while serving as a record of actions that embody the direction toward sustainable growth through innovation and partnerships beyond environmental protection.

Hanwha Advanced Materials will continue to listen closely to the voices of all stakeholders, including customers, partners, local communities, and employees, striving for balanced growth between corporate development and sustainability.

We ask for your continued interest and partnership as we strive for a better tomorrow. Thank you.

CEO Message

Company Overview

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

"A Global Leader in Irreplaceable, High-Performance, Lightweight Composite Materials"

General Status

Hanwha Advanced Materials possesses an innovative product line and technological expertise in lightweight composite materials and solar energy materials. With local production and R&D systems established in North America, Europe, China, and domestically, it has positioned itself as a trusted and reliable partner for its clients.

Company Name	Hanwha Advanced Materials Co. Ltd.
CEO	In Hwan Kim
Established	December 7, 2022
Head Office	25 th floor, Hanwha Building, 86 Cheonggyecheon-ro, Jung-gu, Seoul Korea
Headcount ¹⁾	2.368 employees

Revenue Ratio ¹⁾	Domestic 30%, Overseas 70%
Business Area	Lightweight Composite MaterialsSolar Materials
Sales ¹⁾	1.0821 trillion KRW
Assets ¹⁾	1,4151 trillion KRW
Website	http://www.hwam.co.kr

History

Establishment1960's~1970's

Entered into petrochemical business, one of the key infrastructure industries, playing a leading role in the industrialization of Korea

1965	Founded	as Korea	Hwasung	Plant

1973 Established Korea Plastics Industry Co., Ltd.

1974 Establishing Hanyang Chemical Holding Co., Ltd.

Growth and advancement 1980's~1990's

Advanced into the materials business as a key growth driver

1986	Expanded into the automotive materials
	industry

Merged Hanyang Chemical Holding Co., Ltd. And Korea Plastics Industry Corp.

1994 Changed corporate name to Hanwha General Chemical Co., Ltd.

Divided operations at Hanwha General Chemical Co., Ltd. Crating a new division for raw materials (Hanwha Petrochemical) and delegating manufacturing operations (Hanwha General Chemical)

Change and innovation 2000's~Present Diversified businesses towards global markets

2004	Built automotive materials plant in Beijing, China	2014	Changed corporate name to Hanwha Advanced Materials after selling the construction materials business
2006	Built automotive parts and materials plant in Shanghai, China Built automotive parts and materials	2016	Built automotive parts and materials plant in Monterrey, Mexico
2007	production facilities in Alabama, U.S. Acquired U.Sbased Azdel Changed corporate name from Hanwha General Chemical to	2020	Integrated into Hanwha Solutions Co., Ltd. (merged with Hanwha Advanced Materials, Hanwha Chemical, and Hanwha Q CELLS)
2009	Hanwha E&C Built automotive part and materials plant in Ostrava, Czechia	2022	Launched Hanwha Advanced Materials as a split off from Hanwha Solutions Co., Ltd.
2010	Began solar materials business	2024	Built automotive parts and materials plant in Texas, U.S.

^{1) 2024} consolidated basis

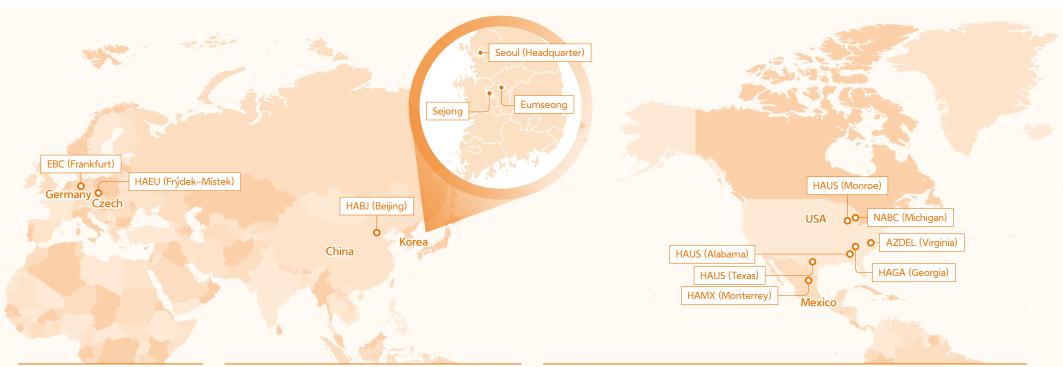
CEO Message

Company Overview

Business Portfolio

Company Overview

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025



EUROPE

Hanwha Advanced Materials Europe, s.r.o. (HAEU)

Příborská 280, Chlebovice, 739 42 Frýdek-Místek, Česká republika

Europe Business Center (EBC)

Kölner Straße 10, 65760 Eschborn, Germany

KOREA

Head Office

25F, Hanwha Building, 86 Cheonggyecheon-ro, Jung-gu, Seoul, Korea

Seiong Plant

79-20, Geumhoangol-gil, Bugang-myeon, Sejong-si, Korea

Eumseong Plant

1329, Daegeum-ro, Geumwang-eup, Eumseong-gun, Chungcheongbuk-do, Korea

CHINA

Hanwha Advanced Materials Beijing Co., Ltd. (HABJ)

Zhongguancun Science Park (East Sector), Changping Zone 4 Lixiang Road, Beijing 102200, China

AMERICAS

Hanwha Advanced Materials America LLC (HAUS)

- Opelika Plant (HAUS) 4400 Northpark Drive, Opelika, AL 36801, USA
- Monroe Plant (HAUS) 1530 E Front St, Monroe, MI 48161, USA
- Texas Plant (HAUS) 3546 N IH 35, Georgetown, TX 78626, USA

Hanwha AZDEL, Inc.

2000 Enterprise Drive, Forest, VA 24551, USA

Hanwha Advanced Materials Georgia, Inc. (HAGA)

251 Great Valley Pkwy, White, GA 30184, USA

North America Business Center (NABC)

2200 Centerwood DKorear. Warren, MI 48091, USA

Hanwha Advanced Materials Mexico S. De R.L. De C.V. (HAMX)

Prolongación Avenida Tecnológico #1345 Fraccionamiento Monterrey Technology Park Ciénega de Flores, NL. 65550 Mexico









Introduction

Company Overview

Business Portfolio

Business Portfolio

Lightweight Composite Materials

Automotive Lightweight Composite Materials and Molded Parts Business

Since entering the lightweight composite materials business in 1986, we have introduced a variety of products in the vehicle interior and exterior sectors. We possess specialized technology in high-strength, ultra-lightweight component materials and currently produce various automotive lightweight composite materials such as StrongLite, SuperLite, BuffLite, IntermLite, SMC, etc. along with parts made from these materials.

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StrongLite

GMT (Glass Fiber Mat Reinforced Thermoplastics)

SuperLite

LWRT (Light Weight Reinforced Thermoplastics)

BuffLite

EPP (Expanded PolyPropylene)

IntermLite

TPO (Thermoplastic Polyolefins) TPU (Thermoplastic Polyurethane) PMC (Powder Slush Molding Compound)

SMC

Sheet Molding Compound

Details

A plate-shaped composite material made of generalpurpose polypropylene resin and reinforced glass fiber mat

A sheet-type composite material with a porous structure formed by mixing PP powder and glass fibers, allowing thermoforming under low pressure

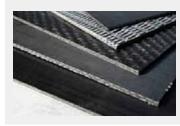
A foamed polypropylene material with high functionality, serving as an eco-friendly alternative to common materials like EPS (Expandable Polystyrene) such as styrofoam

Used as a skin material for automotive interior parts. producing thin plate-type sheets and powder-type

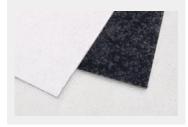
A sheet-type thermosetting composite material composed of unsaturated polyester, glass fibers, and various other mixtures (fillers. catalysts, release agents, etc.)

Application

High-strength plastic bumpers, undercovers, seat back panels. copper bobbins and molds, etc. are used as key materials in the construction industry



Used in automotive parts materials such as the underbody and headliner of sedans and SUVs



Used in various areas such as automotive materials like bumper cores and tool cases, digital device packaging, interlayer sound insulation, electromagnetic wave shielding beads, and solar buoyancy agents



Used as interior parts materials for high-end vehicles, including door trims, armrests, and seat covers

Used as construction materials such as automobile exterior and chassis parts, ceiling materials. water tanks, and electrical distribution boxes





Introduction

Business Portfolio

Solar Materials

High-Efficiency Film Materials Business for Solar Power

Based on over 30 years of expertise in sheet manufacturing technology, we produce and supply encapsulants and backsheets used in solar modules. In 2010, we succeeded in domestic production of encapsulants, a key material in the solar industry, and have since continued to grow, earning quality recognition from major solar module companies both domestically and internationally, including those in the United States, India, and Turkey.

Category

Details

Encapsulant

A sheet attached to the front and back of the solar cell module that acts as an adhesive, protective layer, and cushioning material, protecting the core component, the cell.

Application

Applied to major domestic and international solar module companies. contributing to the solar power generation industry, and is being applied to all types of solar modules except for some CdTe modules



Backsheet

A sheet attached to the back of the solar cell module to protect the cells and module from external factors such as moisture, impact, and UV exposure.

Utilizes fluorine-based films, weather-resistant PET, and weather-resistant polyolefin films, applying film processing technologies such as coating, lamination, and co-extrusion



R&D

Strengthening and Expanding Composite Materials and Components R&D Capabilities in the Future Mobility Sector

Hanwha Advanced Materials is focusing on strengthening its composite materials and R&D capabilities as key growth drivers for the future mobility era. Evidently, we provide customer-tailored total solutions covering the entire process—from material development to design and analysis, testing and evaluation, molding, and product development.

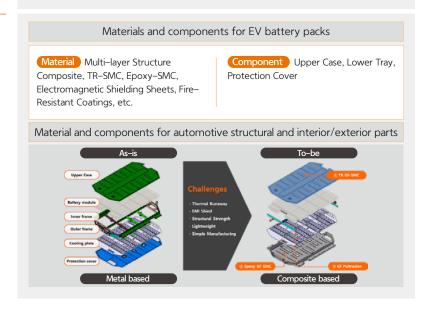
Category

Future Mobility Sector

Details

Focused on lightweight materials and components for future mobility, including electric vehicles, and drive next-generation core technologies, including total battery-case solutions, flexible composite pipes, and aerospace composite materials.

Application



Approach

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Social

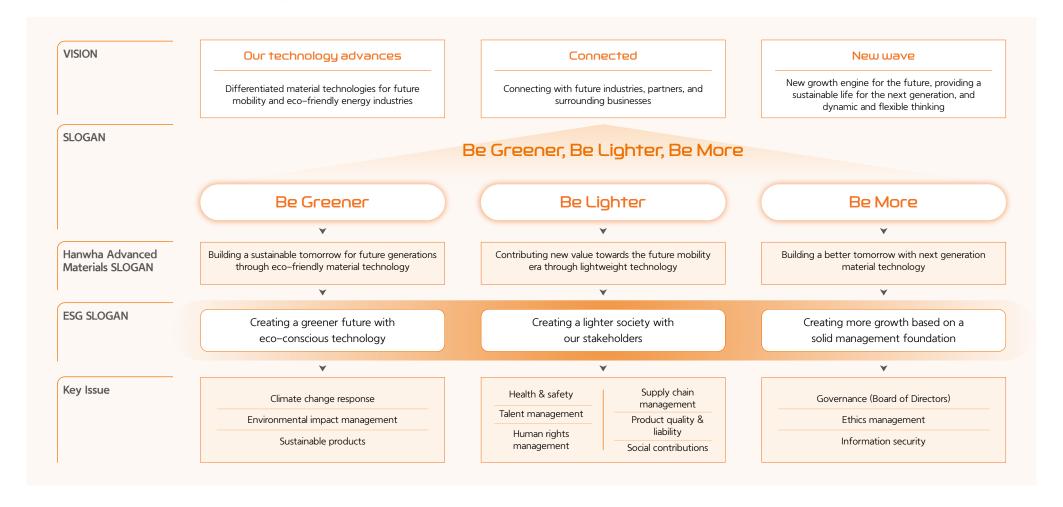


Sustainability Management Framework

Sustainability Management Strategy

Hanwha Advanced Materials ESG Vision

Hanwha Advanced Materials has established its corporate vision as "leading a new wave of change with differentiated materials technology for future mobility and eco-friendly energy industries." We will pioneer new connections with future industries through our technology.



Approach

Introduction

Sustainability Management Framework

Sustainability Management Governance

Sustainability Management Organizational Structure

Hanwha Advanced Materials is enhancing its ESG management system to strengthen environmental, social, and governance practices and achieve sustainable growth. The CEO serves as the highest decision-maker for sustainability management, overseeing the review and approval of critical ESG issues, company-wide ESG strategies and policies, and risk supervision. Under the CEO, the Sustainability Management Council supports the development of ESG strategies and initiatives, monitors their implementation status, and assists in decision-making on matters within each subcommittee.

The dedicated ESG department (Management Innovation Team) supports subcommittee operations and handles internal and external ESG communications. The Sustainability Management Council consists of three subcommittees focused on environment, society, and governance, with each responsible department establishing key ESG performance indicators and sustainability goals. Overall, we plan to enhance ESG management efficiency and, in the long term, advance sustainability governance by establishing a board–level decision–making body.

Organizational Structure



Social

Double Materiality Assessment

Double Materiality Assessment Overview

Hanwha Advanced Materials has applied the concept of Double Materiality Assessment (DMA), introduced in the Global Reporting Initiative Standards 2021 and the European Union's Corporate Sustainability Reporting Directive (CSRD), and conducted this assessment for the first time this year. The DMA is a methodology that selects key issues in corporate sustainability by considering the impact each issue has on the environment and society (Inside-Out) and also the financial impact on the company (Outside-In). Hanwha Advanced Materials transparently discloses the assessment methodology and results, identifies issues with significant impact, and establishes appropriate response strategies. Through this, we aim to build trust in sustainability management disclosures and social responsibility, while gathering stakeholders' opinions on major risks and opportunities.



Assessment Process

Hanwha Advanced Materials conducted a double materiality assessment through a four-step process; identifying a pool of sustainability management issues, recognizing the impact of each issue, evaluating the impact, assessing materiality, and selecting material issues. Considering ESG evaluation and disclosure standards (such as GRI, SASB, MSCI, ESRS), a pool of 24 issues (long-list) were established, from which nine topics (short-list) highly relevant to Hanwha Advanced Materials were derived. An impact assessment was conducted to identify and prioritize how each issue's corporate activities affect the environment and society, as well as how risks and opportunities related to sustainability management issues influence the company's financial performance. Environmental and social impact evaluations considered scale, scope, remediability, and likelihood, while financial impact evaluations took the scope and likelihood of financial effects into account. Material issues were selected through an ESG-related internal stakeholder survey assessing the materiality of each impact.

STEP 2 STEP 1 STEP 3 STEP 4 Identify impacts, risks and Derive sustainability related issue pool Assess materiality Select material issues opportunities for each issue Understand company's business activities Identify impacts, risks and opportunities Assess identified impacts, risks, Select assessed material issues related to the company and opportunities Conducted survey¹⁾ with internal · Selected material issues reflecting · Derived issue pool (long-list) reflecting · Identified environmental, social, and stakeholders to assess materiality of each materiality assessment ESG evaluation criteria and chemical and financial impacts from company activities - Climate change issue automotive parts manufacturing industry - Environmental/social impact: positive/ - Environmental/social impact: Assess scale, - Product R&D characteristics negative and actual/potential impact scope, remediability, and likelihood - Health & safety analysis - Financial impact: Assess scale and - Supply chain management · Nine key issues (short-list) derived in - Financial impact: risk/opportunity analysis likelihood - Product quality & liability relevance to industry peers and HWAM 1) Survey period: May 20~22, 2025

Double Materiality Assessment

Double Materiality Assessment Result

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

Hanwha Advanced Materials has selected five material issues, climate change, product R&D, health and safety, supply chain management, product quality and liability, by comprehensively considering environmental, social, and financial impacts through a DMA. We thoroughly disclose the assessment results, including impact assessments, in its sustainability report, and will engage with stakeholders through the performance related to the selected material issues and the advancement of the DMA methodology.

Double Materiality Assessment Results

Material Issue	Impact	Impact Definition	Impact Type	Impact Level	Page	GRI Index	UN SDGs
Climate Change	Environmental/ Social	Climate change caused by GHG emitted throughout the entire value chain leading to abnormal weather patterns and changes in precipitation.	Negative/Actual	•00			
	Environmental/ Social	Mitigating climate change through continuous increase in renewable energy use and direct/indirect energy consumption reduction	Positive/Potential	•00	20–22,	302-1,3,4	7 에너지의 진환경적 생산과 소비 13 기후번화대의
	Financial	Increased costs from GHG regulations response and energy transition demands to reduce GHG	Risk	•••	68	305–1~5	
	Financial	Costs incurred for renewable energy transition to achieve carbon neutrality goals (equipment investment, PPA contracts, REC purchases, etc.)	Risk	•••	-		
Product R&D	Environmental/ Social	Promoting technological innovation and improving resource efficiency through eco-friendly products and technology development	Positive/Actual	•••	32–33		9 산업적신과 사회기반시설 확용
Product RAD	Financial	R&D costs incurred transitioning to eco-friendly materials and sustainable products (manufacturing overhead and administrative expenses)	Risk	•••	- 32-33 -		
	Environmental/ Social	Enhanced worker safety through strengthened industrial accident prevention and management systems	Positive/Actual	•••			
Health & Safety	Environmental/ Social	Physical and mental harm to workers and deterioration in quality of life from workplace accidents (mishandling of chemicals and hazardous materials) resulting in human capital loss	Negative/Actual	••0	35–40, 74	403-1~10	3 #### £
	Financial	Production and sales decline due to work stoppages caused by accidents along with worker compensation and litigation costs	Risk	•00			
	Environmental/ Social	Reputation deterioration due to delivery disruptions, quality degradation, and delayed deadlines caused by inadequate supply chain management	Negative/ Potential	•00			
Supply Chain	Environmental/ Social	Building trust between companies and strengthening the management stability of SMEs through inclusive growth support for partners	Positive/Potential	••0		308–1, 2	8 좋은 일자리 확대약 경제성당
Management	Financial	Reduced supply chain management operating costs by securing procurement stability through sustainable supply chain management	Opportunity	••0	51, 73	414–1, 2	
	Financial	Costs incurred from alternative raw materials purchases and procurement management operations (outsourcing fees, loss of delivery contract commissions, emergency procurement costs, etc.)	Risk	••0	-		
	Environmental/ Social	Decline in customer satisfaction and direct/indirect damages caused product quality issues	Negative/ Potential	••0			
Product Quality &	Environmental/ Social	Improved customer satisfaction through strict product quality control and maintenance	Positive/Actual	•••	33, 53–		12 지속가능전 생산과 소비
Liability &	Financial	Increase in provisions and inventory assets due to recalls caused by product defects and other quality issues	Risk	•••	54		CO
	Financial	Declined sales due to loss of consumer trust from quality management failure along with costs to enhance product quality and safety	Risk	••0			

Double Materiality Assessment

Material Issue Management

Material Issue	Implementation System	Strategy/Policy	Risk Management	Metrics
Climate Change	Hanwha Advanced Materials' Carbon Reduction Committee is composed of team leaders and operational staff from the Management Innovation Team, Environmental Safety Team, Maintenance Team, Purchasing Team, and each production department. Every six months, they establish carbon reduction plans and review progress, while operational staff identify new tasks and manage task performance monthly.	 Establish carbon reduction plan Purchase renewable energy Develop eco-friendly infrastructure 	 Reduce carbon emission by transitioning to eco-friendly transportation (electric forklifts, company fleet) Reduce NOx emissions by installing low-NOx burners Reduce energy consumption through solar power facilities 	 2024 performance:19.5 decrease in scope 1&2 emissions in comparison to 2019 2030 target: 20% decrease in scope 1&2 emissions in comparison to 2019
Product R&D	Hanwha Advanced Materials conducts Life Cycle Assessments (LCA) to objectively manage product carbon emissions to ensure sustainable product development. We are also pursuing eco-friendly product development, including the development of products using renewable raw materials.	 Execute Green Action Alliance project Pursue investments in eco-friendly technology and material R&D 	 Obtain and maintain GRS certification to expand recycled material use in the product manufacturing process Conduct Life Cycle Assessment (LCA) 	 GRS certification (StrongLite, BuffLite) RCS certification (SuperLite, IntermLite)
Health & Safety	Hanwha Advanced Materials has a dedicated organization at its headquarters for preventing serious accidents and health and safety teams at each business site. The headquarters oversees and manages safety and health tasks primarily through the Health and Safety Team under the Support Office. The Sejong plant operates an Environmental Safety Team under the responsible executive, while the Eumseong plant has designated health and safety personnel within the Eumseong Support Team.	 Record zero incidents at sites Record zero incidents at suppliers' companies Expand safety culture through interactive employee events 	 Health & safety inspection activities – self-inspections (monthly), thematic inspections (monthly), cross-inspections (quarterly) Regular and ad hoc risk assessments Emergency response training (fire suppression, chemical spills, confined space asphyxiation accidents) Obtained ISO 45001 Occupational Health and Safety Management System certification Regular Industrial Health and Safety committee meetings and health and safety risk monitoring 	 Zero serious incidents ISO 45001 certification obtained at Sejong plant & Eumseong plant (August 26, 2025~August 25, 2028) First certification date: August 26, 2013 291 cases of workplace safety improvements 100%¹⁾ health and safety training completion rate
Supply Chain Management	Hanwha Advanced Materials' sustainable supply chain management policy applies to all suppliers, including 1st-tier suppliers. It encompasses principles of sustainable procurement considering environmental and social aspects, a code of conduct for partners, an ESG evaluation system for the supply chain, and grievance handling that is continuously monitored.	 Establish and enhance supplier chain management policy Establish conflict materials policy Advance supplier code of conduct and ensure compliance Supplier ESG risk assessment and monitoring Support internal and suppliers capability enhancement 	 ESG supply chain risk assessment and supply chain due diligence process enhancements Support for supply chain risks including supplier training and technical consulting Operate supply chain communication channels Conflict minerals management ad policy establishment 	 ESG risk assessment performed for 13 suppliers Purchase amount ratio between suppliers assessed for risk and total suppliers' purchase amount: 44.1%
Product Quality & Liability	Hanwha Advanced Materials' Quality Control Department manages quality indices to enhance product quality and customer satisfaction. Following management guidelines, it gathers feedback and carries out quality improvement activities to prevent similar issues from recurring.	Company-level and site-level internal quality management policies RoHS (Restriction of Hazardous Substances) Directive based substance testing and management	 IATF 16949 (management system certification) obtained at Sejong plant Awarded by the Ministry of Trade, Industry and Energy for excellence in quality competitiveness FMEA (Failure Mode and Effects Analysis) for product-specific failure possibility analysis and IMDS (International Material Data System) hazardous chemical data management Customer complaint reporting channels operations and conducting regular customer satisfaction surveys Manage quality indices that meet customer quality requirements such as incoming defect rates and defect occurrence indices 	• 177 products tested for customer safety









Sustainability Management Framework | Double Materiality Assessment | Stakeholder Engagement

Introduction Approach

Stakeholder Engagement

Stakeholder Engagement

Hanwha Advanced Materials identifies employees, customers, partners, shareholders and investors, government, and local communities as key stakeholders who influence and are influenced by its business activities. Moving forward, we will gather stakeholders' opinions through various communication channels, reflect them in our management activities, and disclose Hanwha Advanced Materials' ESG performance and plans.

Stakeholders	Key Issue	Response Activities	Communication Channel
Employees	 Respect for human rights and diversity Health and safety management internalization Talent acquisition and employee skill enhancement Healthy labor management culture and welfare 	 Establish human rights management policy Provide employee training (human rights, job skills, global talent development) Share talent values and run various recruitment and internship programs including in-house awards and promotion initiatives Operate diverse welfare programs and benefits 	 Labor-Management Council Organizational culture evaluation/satisfaction survey Grievance handling system Regular operations manager meetings
Customers	 Eco-friendly product development Customer satisfaction and product improvement Information security and privacy protection Sustainable innovation and R&D 	 Customer-centric events and seminars participation Customer ESG activity participation Promoting joint research projects Collaborative activities throughout the entire automotive parts development process 	WebsiteCRM, email
Partners	 Ethics management and fair trade Health and safety internalization Sustainable supply chain management and inclusive growth Information security and privacy protection 	 Compliance with fair trade and various support activities (finance, training, technical support) Communication with partners (sharing our policies, achievements, and plans) Sharing our Code of Conduct with partners Supporting partners' ESG management 	Partner consultative bodyPartner training and seminarSupport for outstanding partners
Shareholder/ Investors	 Transparent board operations Company-wide integrated risk management 	Report on business performance and board of directors' operations through regular disclosure	 General shareholders' meeting and board of directors Corporate disclosures Website announcements Sustainability report
Government	 Strategic climate change response activities Health and safety management internalization Compliance with all environmental/health and safety regulations 	 Internal control systems and compliance team operations Diligent tax payment Participation in various association activities 	Corporate disclosureWebsite announcementsMedia/press
Loal Communities	Water and air pollution, waste managementBiodiversity preservationSocial contribution expansion	 Community contribution activities (environment conservation, low-income families, etc.) Neighborhood assistance fundraising Regular company clubs' volunteer activities 	Website Local community complaint collection

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Environmental Management

Environmental Management System

Environmental Management Organizational Structure

Hanwha Advanced Materials complies with the environmental management system and policies, systematically managing established KPIs at each business site. Additionally, we regularly monitor sources and emissions of air, water, and waste generated during business activities, conduct environmental theme inspections, continuously review environmental issues, and seek improvement measures.

Organizational Structure



Environmental Management Policy

Hanwha Advanced Materials fulfills its responsibility for environmental management and practices social responsibility for sustainable development. To minimize environmental risks such as GHGs, energy use, water resources, air pollution, waste, hazardous substances, and soil contamination, we have established and implemented an integrated environmental management policy applied across all business sites, requiring compliance from partners and stakeholders. Additionally, through company-wide and site-specific environmental management policies, we strive to build a culture centered on environmental health and safety.

Integrated Environmental Management Policy

Environmental Health and Safety Policy [2]

Environmental Management System Certification

Hanwha Advanced Materials has implemented a management system based on international standards to achieve systematic environmental management. Evidently, both Sejong and Eumseong plants have obtained ISO 14001 certification, strengthening internal management capabilities to minimize environmental impact and drive continuous improvement. Moving forward, we plan to continue our efforts in company-wide environmental risk management and responsible production activities.



ISO 14001 Certificate

HANWHA ADVANCED MATERIALS

Environmental Management

Environmental Management Goal

Hanwha Advanced Materials recognizes the importance of environmental management and thoroughly monitors environmental impact factors affecting all business activities. We have established mid- to long-term environmental reduction goals and tasks, continuously striving to minimize risks related to environmental management. To optimize and reduce the use of key environmental impact indicators such as water resources, pollutants, waste, and hazardous substances, we will persistently pursue policy and facility improvements to minimize our environmental footprint.

Category

Key Issue

2024 Performance

Mid/long-term Implementation Task

Water



Hanwha Advanced Materials acknowledges the importance of water resource management and is continuously striving to optimize water usage and expand recycling in its manufacturing processes. Currently, it thoroughly monitors water resource management factors such as pollutant concentrations, and plans to set future targets for reducing water intake, carrying out campaigns, and establishing systems as part of mid- to long-term initiatives to achieve these goals.

Reduced water usage



- · Water conservation campaign
- · Condensate recovery system
- · Water pollutant monitoring
- · Set water usage reduction targets

Waste



Hanwha Advanced Materials is reviewing measurable targets to increase the recycling rate across its facilities. Recognizing the importance of resource circularity, the company is strengthening waste segregation and disposal, prioritizing recyclable materials to reduce landfilling and incineration, and expanding the use of sustainable products, including those made with recycled content.

 Increased waste recycling rates due to the transition to waste recycling treatment



- Increase waste recycling rates at workplaces
- · Expand sustainable products and use of recycled materials

Pollutants



Hanwha Advanced Materials is thoroughly implementing pollutant management activities that meet legal requirements. Furthermore, to ensure sustainable environmental management in the future, we plan to set measurable targets for air, water, and soil pollution, and develop systematic measures to effectively manage and reduce pollutant emissions.

- 370 million won on expanding air pollution prevention facilities
- Pollutant emissions (NOx) reduction target by replacing boilers with low-NOx burners



- · Establish environmental pollutant reduction
- Set air/water pollutant management targets

Hazardous Substances



Hanwha Advanced Materials systematically manages hazardous substances by incorporating hazardous waste management goals into internal policies to proactively prevent environmental impacts. Through this, we continuously monitor the management standards at each business site, comply with relevant regulations, and strengthen the foundation for reducing environmental risks.

Reduced hazardous substance use





- Expand alternative material usage
- Improve production efficiency by reducing raw material use

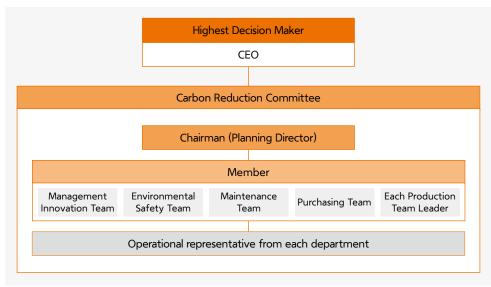
Climate Change Response

Climate Change Response System

Climate Change Response Organizational Structure

Hanwha Advanced Materials operates a Carbon Reduction Committee composed of team leaders and staff from the Management Innovation Team, Environmental Safety Team, Maintenance Team, Purchasing Team, and each production department to address climate change. The committee reviews the progress of the annual carbon reduction plan every six months and reviews key agenda items. Through monthly meetings with working-level staff, the committee identifies new tasks and assesses progress. In addition, the Maintenance and Production teams at each business site are promoting greenhouse gas reduction activities through the introduction of high-efficiency equipment and the development of products using recycled raw materials, while the Environmental Safety team established a GHG inventory and is measuring emissions.

Organizational Structure



Climate Change Response Investment

Hanwha Advanced Materials is rolling out a company-wide GHG reduction strategy aligned with the Carbon Reduction Committee's plan. In 2024, we replaced existing burners with low-NOx models to reduce NOx emissions, and we are evaluating five to six investments such as upgrading aging equipment and installing high-efficiency systems at key sites to improve energy efficiency. We are also continuously investing in the use of renewable raw materials to reduce the carbon emissions of our products.

Investment Performance

Category	Period	Key Information
Invent LCA system	2024	Product carbon footprint monitoring system
Low-NOx burner replacement	2024	Reduction of NOx emissions
VSD air compressor	2025	Improved operating efficiency

CDP Participation

Hanwha Advanced Materials voluntarily participated in the Climate Change section of the CDP to strengthen its climate change response capabilities and as a commitment to transparently disclose information to build trust with global stakeholders. In recognition of these efforts, we received the Special Carbon Management Award at the '2024 CDP Korea Awards.' We will continue to participate in the CPD to disclose our climate change response efforts and maintain responsible information disclosure.

2024 CDP Korea Award Carbon **Management Sector Honors**



Environmental

Appendix

Climate Change Response

Climate Change Response Strategy

Climate Change Response Strategy Implementation

Hanwha Advanced Materials has established a practical system to reduce GHG emissions and is actively implementing related goals, response and management activities. We are vigorously promoting GHG and energy reduction efforts at each business site through carbon reduction roadmap development, renewable energy purchasing, and building eco-friendly infrastructure.

1. Carbon Reduction Roadmap

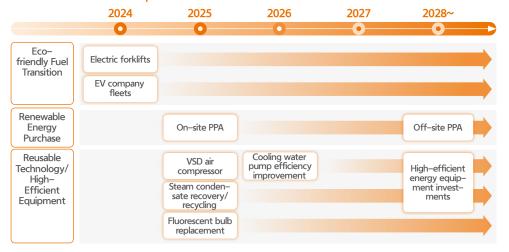
Implement plans to reduce GHG emissions in the short and midterm with renewable energy purchasing and high-efficiency equipment

2. Renewable Energy **Purchase**

Signed direct PPAs in 2024, will procure renewable energy in 2025 with plans for further purchases

3. Eco-friendly Infrastructure Expanding eco-friendly infrastructure: energy-efficient facilities, ESS, high-efficiency equipment, and eco-friendly vehicles

Carbon Reduction Roadmap

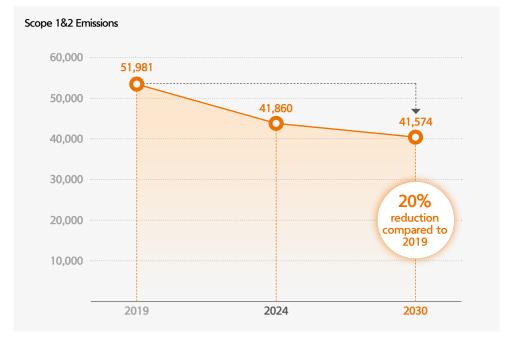


GHG Reduction Goal

Hanwha Advanced Materials has set a goal of reducing carbon emissions by 20% by 2030 compared to 2019 emissions and is pursuing a mid- to long-term roadmap to achieve this goal. Going forward, we plan to enhance our GHG inventory, including Scope 3 emissions, to establish a more sophisticated management system and also expand the adoption of renewable energy, improve energy efficiency, and reduce emissions across the entire production and logistics process. Through these efforts, we will continuously manage achievable reduction targets and practice responsible climate action.

GHG Reduction Target

(Unit: tCO2eq)



1) All values are rounded to the nearest whole number at the first decimal place

Environmental Management | Climate Change Response | Environmental Impact Management | Sustainable Products

Social

Climate Change Response

Climate Change Response Activities

Energy Management

Hanwha Advanced Materials conducted management activities, including insulation and painting of utility pipes, in 2024 to improve energy efficiency. Going forward, we plan to optimize energy consumption through the introduction of an energy management system and process improvements.

In particular, we are gradually embedding implementation strategies, including process optimization and replacement of high-efficiency equipment, with the goal of reducing energy consumption at our plants through internal energy efficiency improvements by 2030. Furthermore, to expand its use of renewable energy, an on-site PPA agreement was signed in 2024, and by March 2025, the installation of a solar power plant on its site is expected to be completed, marking the full-scale commencement of renewable energy use

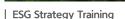
Carbon Reduction from Transportation

Hanwha Advanced Materials' is prioritizing the adoption of eco-friendly vehicles when replacing vehicles within our facilities. We are expanding the electric vehicle conversion, taking into account year and kilometers of the vehicle (8% of vehicles are eco-friendly as of March 2025). We are also strengthening our on-site EV charging infrastructure, currently operating four chargers. We are continuously pursuing the decarbonization of transportation, considering both logistics efficiency and environmental impact, including achieving a 100% adoption rate of electric forklifts used in vacant spaces and considering additional electric vehicle transitions in the future.

Climate Change Response Training

Hanwha Advanced Materials regularly conducts various climate change response training sessions to raise awareness and promote behavioral changes among employees regarding carbon emission reduction and climate change adaptation. Training for responsible personnel is held quarterly, and in 2024, all 631 employees completed the training.







| ESG Strategy Training Certificate of Completion

Appendix

Environmental Impact Management

Water Resource and Pollution Management Activities

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

Water Resource Conservation

Hanwha Advanced Materials sets site-specific targets to use water efficiently and reduce consumption, tracking progress by monitoring intake and discharge volumes.

Moving forward, we will launch a water-saving campaign to encourage voluntary participation by all employees and promote a closed-loop water use through condensate-recovery systems. Some business units are evaluating opportunities to reuse water within their processes, and will implement systematic management measures to prevent groundwater contamination and minimize environmental impact around its sites.

Water Resource and Pollution Management Plan







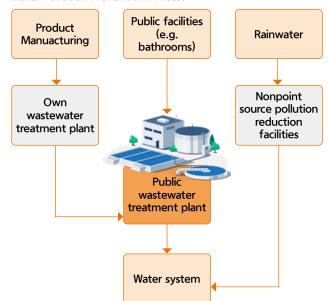


Water Pollution Prevention and Management

Hanwha Advanced Materials operates its own wastewater treatment plant to purify water pollutants generated during the production process, and undergoes preliminary purification process under legally permitted standards. Wastewater that underwent preliminary purification discharged from the facility flows into the industrial complex's public wastewater treatment plant, where it undergoes final purification before being released into water systems.

Additionally, all water pollutants are regularly measured to minimize environmental impact and risks. To manage and reduce water pollution, pollutants are analyzed quarterly at all discharge points, monitoring key indicators such as TOC and BOD. The facility's final discharged water is also monitored for water pollutant emissions by an accredited analysis institution.

Water Pollution Prevention Process





Water Quality Assessment Report

Environmental Impact Management

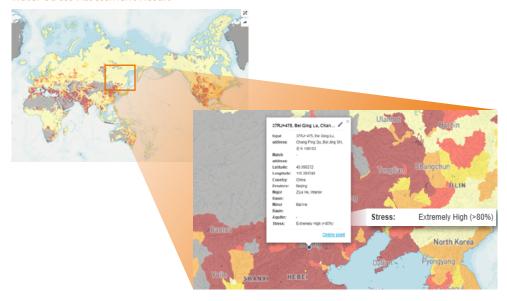
Water Resource and Pollution Management Activities

Water Resource Risk Management - Water Stress Assessment

With the growing importance of water resources, Hanwha Advanced Materials conducted a Water Stress Assessment with the WRI¹⁾ to ensure strict water stress management standards. The analysis of water stress in the areas where Hanwha Advanced Materials' plants are located revealed that the Beijing plant was rated as "very high (>80%)," while the Sejong plant, EBC, HAGA, and HAMX were rated as "high (40-80%)." Based on the risk assessment results for each site, Hanwha Advanced Materials is considering appropriate management measures, such as water source replacement, for high-risk areas. Furthermore, we are considering introducing a systematic water resource audit system to enhance water resource management efficiency.

1) WRI (World Research Institute) studies sustainable practices for business, economics, finance, and governance to better support human society in six areas: food, forests, water, energy, cities, and climate.

Water Stress Assessment Result



Hanwha Advanced Materials Sites' Water Stress Assessment Result

Site	Water Stress
Head Office	Medium — High(20–40%)
Sejong Plant	High (40-80%)
Eumseong Plant	Medium - High (20-40%)
Hanwha Advanced Materials Beijing Co., Ltd. (HABJ)	Extremely High (>80%)
Hanwha Advanced Materials Europe, s.r.o. (HAEU)	Medium - High (20-40%)
Europe Business Center (EBC)	High (40-80%)
Hanwha Advanced Materials America LLC (HAUS) Opelika Plant	Medium – High (20–40%)
Hanwha Advanced Materials America LLC (HAUS) Monroe Plant	Low (<10%)
Hanwha Advanced Materials America LLC (HAUS) Texas Plant	Medium - High (20-40%)
Hanwha AZDEL, Inc.	Medium - High (20-40%)
Hanwha Advanced Materials Georgia, Inc. (HAGA)	High (40-80%)
Hanwha Advanced Materials Mexico S. De R.L. De C.V. (HAMX)	High (40-80%)
North America Business Center (NABC)	Low - Medium (10-20%)

Social

Environmental Impact Management

Air Pollutant Management Activities

Air Pollutant Management System

Hanwha Advanced Materials is committed to reducing air pollutant emissions by replacing high-efficiency prevention facilities and continuously monitoring emissions through measurement and inspection of generated air pollutants to minimize discharge levels. Additionally, to enhance the environmental management system, we have introduced an environment focused inspection (semiannually) program involving production personnel directly, striving to maintain zero risk of environmental regulation violations.

Environmental Regulation Compliance and Monitorization

Hanwha Advanced Materials Sejong plant received final approval in 2024 from the Ministry of Environment for its Integrated Environmental Management System. As part of the environmental impact assessment, air-pollutant emission standards were tightened and installed high-efficiency ultra-low NOx burners to reduce emissions. We operate filtration dust collectors to handle particulate matter generated during the manufacturing process and install scrubber dust collectors to remove fumes and gaseous substances produced in drying facilities such as ovens, thereby eliminating pollutants. To maintain nitrogen oxide emissions below 15 ppm, we have improved air pollutant emission facilities and installed enclosed hoods on research equipment to capture and remove pollutants dispersed into the atmosphere, actively working to reduce fugitive emissions. Additionally, we plan to minimize air pollutant emissions through equipment inspection and maintenance, and continue investing in technical improvements and facilities to protect the environment.



System Approval (2024)



| Integrated Environmental Management | Ultra-low NOx burner boiler installation (Sejong)

Noise and Odor Management Activities

Noise Mitigation Actions

Hanwha Advanced Materials regularly conducts workplace noise measurements, including workplace noise measurements, to ensure a healthy work environment. If any abnormalities, such as hearing loss, are discovered in randomly selected workers during these measurements, immediate action is taken. Furthermore, starting in 2025, we plan to expand time-based noise measurements to the entire business site boundary, thereby more systematically managing the noise impacts inside and outside the business site.



| Sejong plant Noise Measurement Boundary



Eumseong Plant Noise Measurement Boundary

Odor Management Actions

Hanwha Advanced Materials regularly measures odor concentration and monitors odor emission status according to the odor process testing standards in compliance with the Odor Prevention Act. Although it is not a designated odor management facility, we continuously identify and implement reduction measures to voluntarily minimize odor emissions.

Environmental Impact Management

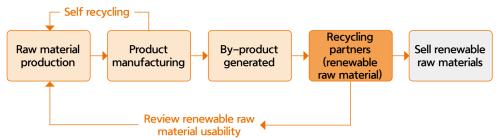
Waste Management Activities

SUSTAINABILITY REPORT 2025

Resource Circulation Expansion

Hanwha Advanced Materials has established and operates a company-wide waste management system to minimize waste generation and increase recycling rates in its business activities and manufacturing processes. Taking into account the characteristics of each process, it is implementing technological developments such as converting waste into recycled raw materials. Manufacturing by-products like scrap are sorted and reused by-products not meeting quality standards, we are reviewing ways to reuse as recycled raw materials with our recycling partners. To reduce resource waste on-site and build a sustainable circular system that suppresses waste, the company is pursuing certification for circular resources by 2025.

Manufacturing By-product Recycling Process



Recycled Raw Material Application

Hanwha Advanced Materials is gradually increasing the amount of recycled raw materials it uses each year to comply with the environmental and social responsibilities required by the Global Recycled Standard (GRS) certification, thereby contributing to minimizing resource consumption and reducing waste.

Recycled Raw Material Input Status

Base Year	2022	2023	2024
Recycled raw material input (ton)	2,785	2,574	2,865

Waste Classification and Disposal

Hanwha Advanced Materials operates a separate waste storage facility, classifying and storing waste according to its nature, including incineration, landfill, and recycling, to ensure proper management. We also inspect waste disposal companies at least once a year to ensure compliance with waste-related laws and regulations. Waste generated by each process is classified by type and environmental accident prevention measures are implemented. We also continuously strengthen our partnerships with recycling specialists to increase the proportion of recyclable and reusable resources. Additionally, we have designated a separate hazardous waste storage facility to minimize the risk of environmental impact caused by hazardous waste.

Waste Disposal Process



Waste Management Training

To enhance the environmental awareness of its employees and strengthen their waste management capabilities, Hanwha Advanced Materials provides training on waste management procedures and systems to waste-generating departments at least once a year, thereby encouraging voluntary waste reduction. The training provides practical measures to reduce waste generation in processes and work activities. The training also ensures employees understand the relevant standards and apply them effectively in their work

Environmental Impact Management

Hazardous Substances Management System

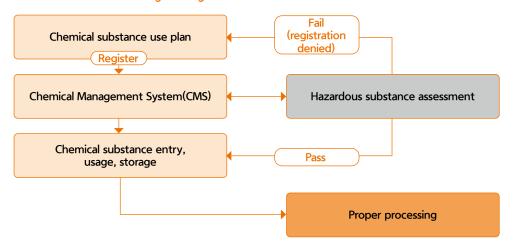
Hazardous Substances Management Organization

Hanwha Advanced Materials designates separate managers within departments handling hazardous substances (production, R&D) to oversee management. Pre-purchase assessments are conducted to ensure compliance with legal requirements, and relevant data is regularly collected and monitored. Furthermore, based on the results of regular inspections of hazardous chemical handling facilities, the management system is continuously reviewed to ensure compliance with legal requirements and maintain a safe working environment.

Hazardous Substances Management System

Hanwha Advanced Materials thoroughly inspects its products for hazardous substances during the manufacturing process by managing hazardous substances through a chemical substance management system. We clearly label hazardous substances according to relevant standards, store them safely in appropriate locations, and adhere to safety regulations during handling. Furthermore, we apply legally-compliant procedures during transportation to proactively prevent risks associated with hazardous substances and strengthen our company-wide safety management.

Hazardous Substances Storage Management Process



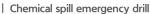
Hazardous Substances Management Activities

Hazardous Substance Management and Alternative Substance Use

Environmental

Hanwha Advanced Materials minimizes environmental and human health impacts from hazardous substances by conducting pre-assessments to review the toxicity of materials, recommending alternatives with lowtoxicity substances and already incorporating these changes into processes. To meet environmental and safety standards while maintaining product performance, we evaluate the stability and suitability of alternative materials from the raw material stage, striving to reduce the use of hazardous substances throughout the entire production process and to establish a safer work environment and sustainable production system.







Chemical substance hazard assessment and registration(production raw materials)

Hazardous Substances Disposal Procedure Compliance

To ensure the safe management of hazardous substances, Hanwha Advanced Materials strictly adheres to treatment and disposal procedures based on Material Safety Data Sheets (MSDS). Furthermore, for new hazardous substances, prior to disposal, we verify hazardous waste classification and disposal methods through an accredited testing agency while also complying with relevant laws and regulations. After classifying and storing these substances, we then process them through a legally authorized contractor.

Hazardous Substance Disposal Process



STEP 2 Hazardous substances properties confirmation

STEP 3 Separated hazardous substances storage

STEP 4 Disposal contractor assessment

STEP 5 Disposal/ record management

Environmental Impact Management

Hazardous Substances Management Activities

Hazardous Substances Management Training

To prevent safety accidents caused by hazardous substances and strengthen on-site response capabilities, Hanwha Advanced Materials conducts internal training on an annual basis on chemical handling and chemical import procedures. By conducting regular chemical safety training at all business sites, we ensure the health and safety of our employees and the workplace, while also striving to minimize the risks of hazardous substances in the local community.



Chemical import procedure training



Chemical unloading operation inspection training

Environmental Emergency Response Procedure Implementation

Hanwha Advanced Materials has established and operates emergency response procedures to prevent environmental accidents caused by chemicals and to respond quickly and systematically in the event of an emergency. At our workplaces, environmental risks are minimized through component analysis based on MSDS for each substance, emergency response scenarios for each accident type, regular training and education, and on-site evacuation plans. Furthermore, in the event of an emergency, a situation room is immediately established and an Emergency Response Committee is organized. This committee, along with the emergency control organization, oversees accident recovery, prevention of external spread, emergency response, and cooperation with relevant agencies and preemptive inspections and evacuation measures are implemented in accordance with the emergency response manual. After an accident is resolved, a postincident investigation is conducted to establish measures to prevent recurrence and reorganize the overall response system.

Hazardous Substance Accident Emergency Response Procedures

Category		Details		
Step 1	Substance property analysis	 MSDS-based hazardous chemical substance characteristics investigation and risk assessment 		
Step 2	Emergency response plan implementation and drills	Develop plans for each accident scenario, including evacuation procedures, rescue plans, communication systems, and decontamination Conduct drills at least once a year, addressing any shortcomings and incorporating scenarios		
Step 3	Accident occurrence and emergency alert	The first discoverer spreads the alert through emergency broadcasts and the internal communication network Depending on the situation, fire/gas leak/evacuation alarms are issued		
Step 4	Initial response and evacuation	All employees must immediately move to the designated evacuation site Emergency personnel and related staff promptly carry out access control, wear protective gear, and provide first aid to victims		
Step 5	External expansion prevention and emergency measures	 Prevent contamination spread by shutting off sluice gates and pipes, and controlling electricity and equipment The emergency controller (Environmental Safety team leader) handles external communication regarding the incident Use checklists during natural disaster alerts and broadcast evacuation instructions to local residents if necessary 		
Step 6	Accident closure	The Emergency Action Committee Chairman (site manager) decides when the situation is resolved Personnel from each department return and resume normal duties		
Step 7	Accident investigation and follow-up	 Establish the cause of the accident and preventive measures according to the Process and Accident Investigation Procedures. 		

Environmental

Environmental Impact Management

Biodiversity Management System

Biodiversity Policy

Hanwha Advanced Materials has established a system to protect and promote biodiversity and forests across all of its business activities. It also monitors and evaluates potential risks of biodiversity degradation and forest destruction that may arise throughout its business operations, including procurement, manufacturing, distribution, and sales. Furthermore, it has established and operates a biodiversity and forest conservation policy by establishing principles and implementation measures to conserve, restore, and expand biodiversity in local communities. The policy supports domestic and international laws and regulations on biodiversity and wild flora and fauna protection, as well as global initiatives for biodiversity conservation, such as the International Union for Conservation of Nature (IUCN) Category I-V Protected Areas, while promoting biodiversity risk mitigation activities.

Biodiversity Policy [2]

Biodiversity Risk Assessment Process

As part of its efforts to manage biodiversity and forest conservation risks, Hanwha Advanced Materials conducted a biodiversity risk assessment at its major sites in Sejong and Eumseong, applying the LEAP (Locate, Evaluate, Assess, Prepare) methodology, which is based on international agreements and the Taskforce on Nature-related Financial Disclosure (TNFD) recommendations.

In the Locate phase, the assessment targets and scope were selected based on the business model and value chain. The Environmental Assessment Map system was utilized to analyze the proximity of the business site to sensitive areas and nature. In the Evaluate phase, business activities were classified according to the ISIC¹⁾ criteria and the ENCORE²⁾ tool was used to identify the extent to which each business area relies on ecosystem services and the potential impact on natural capital. In the Assess phase, the data and analysis results collected in the previous phase were comprehensively reviewed. Using WWF³ and IBAT⁴ tools endangered species and protected areas near key business sites were then identified and prioritized. Finally, in the Prepare phase, based on these analyses, a comprehensive strategy for natural capital and biodiversity conservation was designed and activities were implemented to achieve these goals.

LEAP Methodology Process

	Locate	Evaluate	Assess	Prepare
Analysis	 Define industry–specific biodiversity management scope/key sites and assess proximity to natural areas 	 Classify key industry activities under ISIC and assess ecosystem service dependency and impact 	 Identify threatened species and protected areas near key sites 	 Establish targets/strategies and advance biodiversity conservation activities based on results
Tool	Environmental Spatial Information Service — National Environmental Assessment Map System	• UN Environment Programme World Conservation Monitoring Centre – ENCORE	• WWF — Biodiversity Risk Analysis • IBAT	-
Output	Applied industry: plastics manufacturing Applied sites: Sejong/ Eumseong	• 14 dependency indicators • 7 impact indicators	 29 threatened species on the IUCN Redlist⁵⁾ No applicable Ramsar sites 	Citizen's Forest tree adoption initiative Thornbush removal in Sejong City

- 1) ISIC (International Standard Industrial Classification of All Economic Activities)
- 2) ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)
- 3) WWF (World-Wide Fund for Nature)
- 4) IBAT (Integrated Biodiversity Assessment Tool)
- 5) IUCN (International Union for Conservation of Nature)

Environmental Impact Management

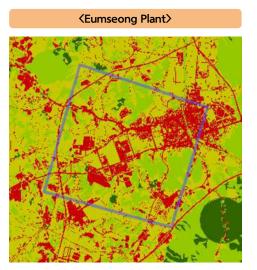
Biodiversity Risk Assessment Result

Ecological Analysis Near Key Business Sites

Locate

To determine the proximity to nature near major business sites (Sejong and Eumseong), we utilized the National Land Environmental Assessment Map System of the Environmental Spatial Information System to conduct a nature asset value assessment (Grade 1-5).

⟨Sejong Plant⟩



Grade	Assessment Standards	Sejong	Eumseong
Grade1	High ecological/natural value	15.6%	1.2%
Grade 2	Moderately high ecological/natural value	29.8%	21.6%
Grade 3	Requires eco-friendly planning	34%	49.8%
Grade 4	Requires eco-friendly development	0%	0.2%
Grade 5	Must factor in environmental considerations for	20.5%	27.1%
	developments	= 3.5 70	

Dependency and Impact Analysis

Evaluate

Hanwha Advanced Materials analyzed the plastics manufacturing industry's dependencies and impacts on natural capital, based on the ENCORE guidelines. While the industry's characteristics are relevant to 21 indicators, its dependence on natural capital, including water resource purification, was rated as moderate. The impact on the ecosystem, particularly the discharge of toxic substances into water resources and soil, was found to be significant.

	Category	Level
	Water supply	Low
	Global climate regulation	Very low
	Local climate regulation	Low
	Rainfall pattern regulation	Very low
	Air filtration	Very low
	Soil and sediment retention	Low
	Solid waste remediation	Low
Dependency	Water purification	Medium
(14)	Water flow regulation	Medium
	Storm mitigation	Medium
	Flood mitigation	Medium
	Noise Attenuation	Very low
	Other regulating and maintenance service— Dilution by atmosphere and ecosystems	Low
	Other regulating and maintenance service–Mediation of sensory impacts (other than noise)	Very low
	Disturbances	Medium
	GHG emissions	Medium
Impact (7)	Non-GHG air pollutants	Medium
	Solid waste generation and release	Medium
	Toxic pollutants to water and soil	Very high
	Volume of water use	Low
	Area of land use	Low

Environmental Impact Management

Biodiversity Risk Assessment Result

Risk and Opportunity Identification

Assess

Using IBAT and WWF tools, we analyzed the presence of threatened species and both physical and reputational biodiversity risks near the Sejong plant and Eumseong plant. IBAT results confirmed a total of 29 threatened species (CR, EN, VU) on the IUCN Red List, and WDPA analysis confirmed no applicable Ramsar sites. Additionally, the WWF biodiversity risk analysis results confirmed that the regulatory aspect among physical factors was a high risk for both business sites.

Based on such results, we are developing short-term and mid- to long-term response strategies to mitigate risks associated with factors with significant impacts on biodiversity, and are pursuing efforts to minimize environmental impact.

IBAT Protected Species

(Unit: species)

Category	Sejong	Eumseong
Critically Endangered(CR)	0	0
Endangered(EN)	10	10
Vulnerable(VU)	18	18
Near Threatened(NT)	20	20
Least Concern(LC)	439	445
Data Deficient(DD)	14	12

WWF Biodiversity Risk Analysis

Category		Sejong	Eumseong
Physi– cal	Provisioning ser- vices	Med	Low
	Regulatory and support services	High	High
	Regulatory ser- vices(mitigation)	High	High
	Biodiversity pres- sures	Low	Low
Rep- uta-	Environmental factors	Low	Low
tional	Socioeconomic factors	Low	Low
	Other reputational factors	Low	Low

Response and Disclosure

Prepare

Hanwha Advanced Materials' Sejong plant, in collaboration with the Sejong City Nature Conservation Council, has been removing the invasive species, thornbush, and planting trees in the Geumgang River basin and surrounding areas to promote biodiversity and forest conservation. Going forward, we plan to conduct a biodiversity assessment of all our plants to minimize the loss of species and populations in the local ecosystem and continue our efforts to restore biodiversity.



Community environmental cleanup activity





| Sejong City thornbush removal activity

Environmental

Appendix

Sustainable Product

Sustainable Product Development System

Sustainable Product R&D

Hanwha Advanced Materials is committed to minimizing the environmental impact of its products throughout their design, production, use, and disposal stages through sustainable product development. We are currently strengthening our research on eco-friendly technologies and materials. We will set goals to reduce environmental impact throughout the entire process and lay the foundation for achieving these goals.

Furthermore, Hanwha Advanced Materials continues to pursue technological innovation through continued investment in the development of eco-friendly advanced materials. We are consistently striving to expand the use of recycled materials in our product manufacturing processes. As part of these efforts, our StrongLite and BuffLite products achieved the Global Recycled Standard (GRS) certification in 2021, while our SuperLite and IntermLite products achieved Recycled Claim Standard (RCS) certification.

GRS Certification

Contains 20% or more recycled inputs



Product traceable across collection. processing, manufacturing, and sale



Minimize environmental and chemical impacts



GRS/RCS Certificate



RCS Certification



Contains 5% or more recycled inputs



Product traceable across collection, processing, manufacturing, and sale

Sustainable Product Management Goal

Hanwha Advanced Materials has an eco-friendly product line based on GRS and RCS certifications, and is continuously striving to increase the sales ratio of eco-friendly products. To this end, we are developing ELV¹¹-related products that utilize recycled raw materials and recycled plastics derived from scrapped vehicles, either independently or in collaboration with our customers. Furthermore, with the establishment of the LCA system, we are identifying key emission sources throughout the product lifecycle, and implementing carbon reduction tasks aimed at increasing the proportion of renewable raw materials at the raw material stage and improving energy efficiency at the production stage.

Resource Conservation through Efficient Raw Material Use

Hanwha Advanced Materials is implementing sustainable management through the use of eco-friendly raw materials. We optimize processes to increase raw material efficiency, recycle byproducts generated during the production process, and actively utilize recycled raw materials to contribute to resource conservation. We are partnering with multiple companies to advance the 'Green Action Alliance' project, aiming to foster an eco-friendly, materials-based industrial ecosystem. We are conducting R&D on applying biodegradable bioplastics (PLA) to hygiene products and expanding PLA use to a broader range of items, including industrial filters and wipes. We are preparing products using eco-friendly raw materials such as recycled polypropylene (PP) and plan to begin full-scale mass production starting in 2026, which will be managed systematically to reduce environmental impact.



| Eco-friendly material development collaboration

1) ELV (End-of-Life Vehicle): A directive mandating that by 2030, 25% of the plastic used in vehicles must be recycled plastic, 25% of which must come from end-of-life vehicles

Sustainable Product

Sustainable Product Management Activities

Life Cycle Assessment (LCA)

Hanwha Advanced Materials systematically analyzes the environmental impact of its products through LCAs to develop sustainable products. By quantitatively assessing the environmental impact across the entire product lifecycle, from raw material acquisition to product distribution, we identify key carbon emissions sources. Based on this assessment, we are pursuing initiatives such as developing products using recycled PP, recycling steel pallets, and improving facility energy efficiency. We plan to continue manage and reduce carbon emissions through LCA assessments.

LCA Scope











Social

Health & Safety	035
Talent Management	041
Human Rights Management	047
Supply Chain Management	050
Product Quality & Liability	053
Social Contributions	055

HANWHA ADVANCED MATERIALS

Environmental

Health & Safety | Talent Management | Human Rights Management | Supply Chain Management | Product Quality & Liability | Social Contributions

Health & Safety

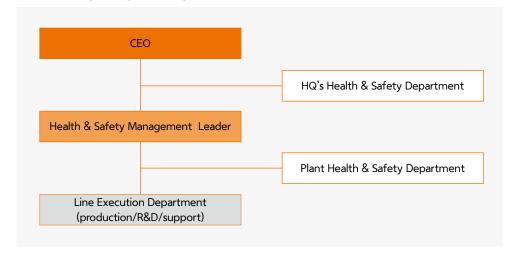
Health & Safety System

Health & Safety Management Policy

Hanwha Advanced Materials establishes and implements health and safety policies to meet the requirements of health and safety related laws, regulations, management standards, and guidelines. By managing health and safety risks and opportunities and driving improvements, we aim to minimize negative impacts, prevent industrial accidents, and maintain a healthy work environment. Our headquarters and all domestic and international business locations are subject to these policies, and we encourage all operational stakeholders, including suppliers, to adhere to them.

Occupational Health & Safety Management Policy 7

Health & Safety Management Organizational Structure



Health & Safety Management Goal

Hanwha Advanced Materials places zero accidents and zero injuries at the top of its safety and health priorities, establishing company-wide objectives. Each business site then develops and implements action plans aligned with these goals. Targets are phased from short-term to long-term, and progress is reviewed annually through planning cycles and performance reports to the CEO to strengthen practical safety and health management. Furthermore, we are enhancing execution by concentrating on accident prevention, training, emergency response, and the digital transformation of its safety, health, and environmental management systems.

2024 Key Health & Safety Performance

Major Accidents



ISO 45001 certified

at Sejong & Eumseong plant



(August 26, 2025~ August 25, 2028) - Certification date: August 26, 2013

Health & Safety Improvements



2025 Health & Safety Improvement Plan

- 1. Achieve zero accidents at sites
- Intensify checks on the three major accident types and eight key hazards¹⁾
- Focused management of key risk factors
- 2. Achieve zero accidents for suppliers
- Establish safety work standards for on-site suppliers
- Expand risk assessment certification for external suppliers
- 3. Expand employee participation to promote safety culture
- Enhance expert OHS training
- Scale up safety campaigns and autonomous safety activities

¹⁾ Scaffolding, roofs, ladders, elevating work platforms, safeguards, lockout/tagout during maintenance, concurrent works, collision prevention

Health & Safety | Talent Management | Human Rights Management | Supply Chain Management | Product Quality & Liability | Social Contributions

Health & Safety

Health & Safety Risk Management

Hazard Identification and Remediation

Hanwha Advanced Materials prioritizes preventing workplace accidents and improving the work environment. Through periodic, company-wide safety inspections, all employees are committed to proactively preventing accidents that could impact not only workers but also the local community. We continuously identify risk factors through monthly safety patrols and department-level inspections. We conduct targeted safety inspections to pinpoint and address high-risk areas such as entrapment, vehicle collisions, and chemical leaks as well as other vulnerable management areas. We also implement systematic preventive measures, including seasonal safety inspections during thawing season, summer, holidays, and winter.

Health & Safety Inspection Status

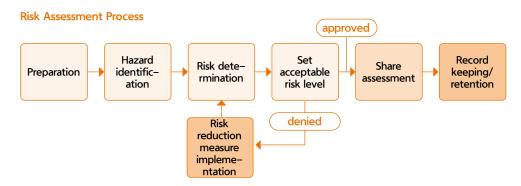
Category	Details	Period
Self Inspection	Team-by-team industrial safety, process safety, fire safety, and work safety inspections	Monthly
Safety Patrol	On-site Safety Patrol inspection by business site	Monthly
Theme Inspection	Theme-based key safety inspection (MSDS ¹⁾ , signs, construction safety management, etc.)	Monthly
Cross Inspection	Cross-inspection of business sites to prepare for seasonal risk factors led by headquarters	Quarterly

¹⁾ MSDS(Material Safety Data Sheet): Safety data sheets for the safe use of chemicals and hazardous substances

Health & Safety Risk Minimization

Hanwha Advanced Materials conducts comprehensive risk assessments to prevent safety risks. All employees involved in operations participate in hazard assessments. We perform annual risk assessments and ongoing on-site safety inspections at every site and department to identify and address hazards. We use the Safety, Health and Environment (SHE) system to monitor the progress of risk identification and improvement actions, with the aim of minimizing safety risks.

Additionally, we engage external risk-assessment experts to identify a wide range of hazards and incorporate their findings into our regular and ad hoc risk assessments, maximizing the effectiveness of accident prevention.



Risk Assessment Status

Category	Details	Period
Regular Assessment	Regularly review the appropriateness of existing risk assessment results and establish and implement risk reduction measures for high-risk factors	Annual
Ad Hoc Assessment	Risk review and assessment in the event of additional hazardous or hazard factors - When accidents occur, work procedures, equipment, or materials are newly added or changed - When maintenance work, irregular or abnormal work occurs, etc.	Always

Health & Safety

HANWHA ADVANCED MATERIALS

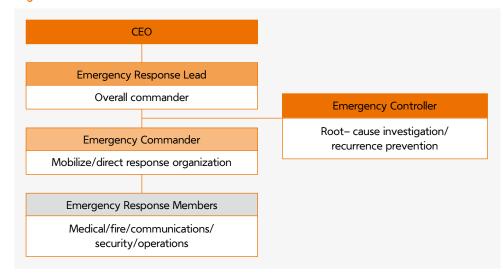
SUSTAINABILITY REPORT 2025

Health & Safety Risk Management

Emergency Response System

Hanwha Advanced Materials maintains an emergency response system to ensure swift and systematic action in the event of an accident. We also prepare for real-world scenarios by establishing response procedures for each possible incident. By thoroughly investigating accident causes and implementing measures to prevent recurrence, we continually reduce safety and health risks and maintain a safe working environment.

Organizational Structure



Emergency Response Process

Accident Occurrence

 Notify and escalate accident

Initial Response

- Alarm activation Work stoppage/
- evacuation • Emergency rescue

- On–site safety check
- Accident investigation/recurrence prevention

Recovery/ Closure

- On–site accident recovery
- Recurrence prevention plan

Emergency Response Drill

Hanwha Advanced Materials develops well-defined emergency scenarios and conducts regular drills and training. We perform routine accident-damage predictions and integrate them into our emergency plans. Based on risk assessments that consider the likelihood and severity of each scenario, we establish graded training cycles and provide enhanced training for high-risk situations such as fires, explosions, leaks, and asphyxiation.

Additionally, to strengthen our emergency response we have updated each department's emergency response plans to cover work stoppages, rapid evacuation, hazard removal, victim rescue, and measures to prevent further damage.

Emergency Response Training Status

Category	Details	Period
Fire/Explosion	Boilers, ESS rooms, etc.	Annual
Injury	Accident scenario training and drills	Annual
Asphyxiation	Suffocation accident scenario training and drills	Annual
Leakage	Chemical, gas, wastewater leakage accident scenario training and drills	Annual
Natural Disaster	Natural disaster (cyclone, earthquake, etc.) scenario training and drills	Biennial



Fire suppression response training



| Chemical leakage response training



Asphyxiation response training

Health & Safety

Health & Safety Management Activities

Employee Health Management

Hanwha Advanced Materials recognizes the health of its employees as a vital corporate asset and is committed to early detection and prevention of diseases through regular health check-ups. Annual health screenings are conducted for all employees to systematically manage their health and contribute to creating a comfortable working environment.

Additionally, to prevent work-related repetitive strain injuries (RSI), strict workplace environment management procedures are implemented. Efforts are made to improve conditions to reduce the burden of repetitive motions on workers, and preventive measures such as encouraging appropriate rest and stretching when necessary.

Alongside annual health check-ups, job stress assessments are conducted to manage employees' mental health. For those classified as high-risk, on-site nurses provide counseling and facilitate treatment connections. To make it easier for employees to address psychological difficulties, the company is reviewing the introduction of a psychological counseling program with external professional institutions, scheduled for full implementation starting in 2026.

Employee Health Management Scheme

Employee Health Right Guarantee

Health insurance program

Employee Mental Health Management

Health checkups, job stress assessments, and in-house nurse treatment (for high-risk groups)

Employee Health Management Program

Cerebrovascular disease, basic disease management, stretching, smoking cessation, and alcohol abstinence programs



CPR training



| Hearing loss prevention training



Musculoskeletal disease prevention training

Supplier Health Management

Hanwha Advanced Materials conducts regular inspections two to three times a week for suppliers in collaboration with external specialized agencies to ensure the safety of non-affiliated workers. We also participate in the Win-Win Cooperation Program led by the Ministry of Employment and Labor, providing safety and health consulting and financial support for facility improvements across suppliers.

Cafeteria and Dormitory Safety Management

Hanwha Advanced Materials conducts quarterly inspections and maintenance of dormitory facilities to ensure a safe and comfortable living environment for our employees. Led by the Sejong plant and Eumseong plant support teams, we systematically implement safety and health management activities, including installing emergency evacuation facilities, inspecting fire-detection and alarm systems, maintaining sanitary facilities, and enforcing access controls. By safeguarding the hygiene and safety of living spaces, we support employees' well-being. We also regularly inspect cafeteria facilities and carefully manage food ingredients to ensure hygiene and safety, delivering safe meals to our employees.







| Cafeteria and dormitory health management facilities

Health & Safety

Health & Safety Management Activities

12 Mandatory Safety Rules

To prevent safety accidents and enhance safety awareness among employees and suppliers, Hanwha Advanced Materials has established and is implementing the "12 Mandatory Safety Rules," which must be observed onsite. Through these rules, we strive to foster a safety culture that all employees voluntarily adhere to.

구분	수칙 항목
	1. 규정된 안전작업 허가절차 준수
작업안전 일반	2, 지정된 안전보호구 착용(작업모, 안전화 포함)
추락사고 예방	3, 고소작업 시, 안전별트 착용 및 안전고리 체결
	4. 동력기계 정비하 동력차단 및 Red-Tag 부착
협착사고 예방	5, Red Tag 부착기기 임의조작 금지
	6. 동력설비에 설치된 보호장치 해제 금지
질식사고 예방	7, 밀패공간 출입(작업)화 주기적 산소/가스농도 측정
Aletales attal	8. 화기작업 시, 감독관 배치 및 주변 인화성물질 제거
화재사고 예방	9. 지정장소外 춈연금지, 금지지역內 불꽃도구 반입 금지
	10. 차량의 차선준수, 규정속도 운행, 교치로 일단정지
교통사고 예방	11. 전동/지계차 작업반경 및 동선내 출입금지
	12, 사업장내 이동시 보행통로 이용 및 이동 中 주변(전방) 확인

| 12 Mandatory Safety Rules

Health & Safety Campaign

Hanwha Advanced Materials is committed to strengthening safety awareness by conducting joint labor-management safety campaigns involving employees and suppliers. In 2024, we are promoting safety guidelines to prevent heat-related illnesses during the summer heatwaves, as well as campaigns on fire prevention, work safety, and traffic safety, aiming to raise workers' attention to occupational health and safety and to foster a culture of safety.



Heat related illness prevention campaign

Health & Safety Communication Channel

Hanwha Advanced Materials runs a dedicated communication channel to systematically address health and safety issues. In 2024, we launched a QR code—based feedback system that allows employees to submit safety suggestions freely and is also accessible to external stakeholders. Submissions are reviewed at the quarterly Industrial health and Safety Committee meetings, and any unresolved items are tracked and addressed at the next meeting.

Health & Safety Communication Process





Collecting Employee Feedback



Integrated SHE Management System

Health & Safety

Health & Safety Management Activities

Employee Health & Safety Training

Hanwha Advanced Materials conducts both statutory and in-house training to strengthen the health and safety capabilities of its employees. Statutory training is conducted periodically at headquarters and each business site in accordance with laws and regulations, and in-house training provides more in-depth training through with external expert instructors and cooperation with specialized organizations. To strengthen safety awareness, Hanwha Advanced Materials conducts campaigns and involves employees in participatory activities. These include safety-rule compliance campaigns and the practice of documenting personal safety and health goals in each employee's health and safety folder

Supplier Health & Safety Training

Hanwha Advanced Materials systematically manages suppliers' training completion status to strengthen their safety and health capabilities. As part of our collaborative efforts, we share training materials and updates on safety and health laws and regulations and encourage our suppliers' managers to participate in external safety and health training where partial training costs are supported thereby further strengthening our collaborative efforts.

Health & Safety Management System Certification

Hanwha Advanced Materials prioritizes the safety of its employees and stakeholders and has obtained ISO 45001 (Occupational Health and Safety Management System) certification to establish a systematic safety and health management system. We have assigned safety and health personnel to each business site to carry out activities such as establishing and operating a health and safety management system, ensuring prior compliance with legal requirements, identifying and improving risks, and cooperating with stakeholders.



ISO 45001 Certificate

Health & Safety Training Status

Category	Details	Details		Participants	Completion Rate	Total Hours
Regular Training	 Matters concerning industrial safety and prevention of industrial accidents Matters concerning industrial health and prevention of health hazards Mid- to long-term plans/goals for workplace safety and health Theories of industrial safety and health management Industrial Health and Safety Act and Serious Accident Punishment Act 	 Department emergency drills (scenario training) Regular/process hazard assessment training, etc. Special safety status training for hazardous/ dangerous tasks Other health and safety matters stipulated by law 	12hr/ semiannually	635persons	100%	5,080hr
Work Change Training	Matters concerning pre-work inspectionsHazards of machinery and equipment, work sequence, etc.	Other training on changes to work content as stipulated by law	2hr/always	50persons	100%	100hr
Specialized Training	Effects of high–pressure hazards on the human body Electrical hazards and prevention of electric shocks	Facility maintenance and inspection Other matters for specific tasks stipulated by law	16hr/start of employment	46persons	100%	736hr
Skill Advanc- ement Training	Health drill training CPR training	 Employees with under one year of employment undergo special safety training Other health & safety training besides legally required training 	2hr 2.5hr 8hr *Depends on training type	403persons	96%	1,412hr

Talent Management

Work Environment Management System

Work Environment Policy

To promote a safe, fair, and respectful workplace, Hanwha Advanced Materials operates a systematic work environment policy. All workplaces adhere strictly to employment regulations, wage laws, and employeebenefit policies. Based on its human rights management policy, ethics charter, and ethical conduct quidelines, we seek to foster a culture of humane treatment and mutual respect.

Wage and Compensation System

To promote employees' financial stability and better working conditions, we strictly follow statutory working hours in each country and pay wages that meet legal standards on a regular basis. We guarantee wages above the legal minimum so that employees and their families can maintain a decent living standard, and we consider wage increase proposals through regular wage-level analyses. The compensation system is reviewed annually and shared with employees via the company bulletin board. In annual salary negotiations, transparency and trust are strengthened through a mutual-agreement-based contract review and signing process. Additionally, we establish appropriate wage standards through periodic living-wage analyses and use these findings to improve the wage system and welfare policies.

Work Hour Management and Overtime

Hanwha Advanced Materials maintains a 40-hour work week, strictly enforced through the HR system. Overtime is allowed up to statutory limits when business needs arise, with caps set in agreement with the union or employee representatives under the Labor Standards Act. Overtime requires prior approval and the employee's consent, and compensation and rest periods are provided in accordance with applicable laws and regulations.

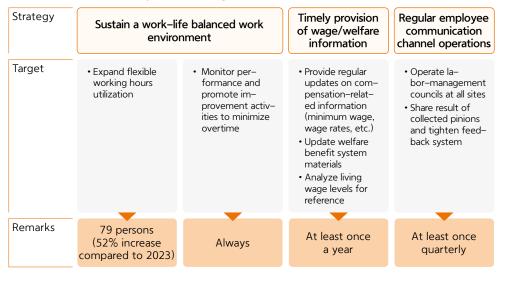
Work Environment Goal

Hanwha Advanced Materials is committed to create a safe, trustworthy workplace and promote a healthy work—life balance. We offer a flexible work system that accommodates diverse working conditions, with a focus on minimizing overtime and efficiently managing hours. Additionally, we support a more comfortable and productive environment by implementing a casual dress code.

In addition to improving the work environment, we hold quarterly labor-management councils at all sites to collect and share employees' views on overall working conditions. Topics include policies, welfare benefits, and organizational culture. Proposed items are reviewed by the relevant departments to determine possible actions, and the results are communicated transparently.

Our compensation system follows the principle of fair rewards based on performance and set annual compensation budgets aligned with the company's strategic goals and link pay to individual performance. We pay above the legal minimum wage and consider local living-wage benchmarks at each site, continually working to ensure employees' basic living standards.

2024 Work Environment Improvement Targets



Appendix

Talent Management

Talent Recruitment and Skill Development

Talent Recruitment

Hanwha Advanced Materials conducts objective evaluations of all applicants to ensure a fair and transparent recruitment process. In line with our human rights management policy and employment regulations, we hire through equitable procedures that do not discriminate based on gender, nationality, disability, age, social status, pregnancy, childbirth, or related factors. The recruitment process includes document screening, interviews, medical examinations, and final selection. To maintain fairness at every stage, job postings include anti-discrimination statements and all candidates undergo the same procedures and rigorous evaluations. To drive sustainable growth, we offer an internship program that supports our diversity and talent acquisition objectives. We hire both fresh graduates and seasoned professionals and maintain a job-rotation program for current employees. We continually curate talent pools inside and outside the organization to identify suitable candidates, ensuring outstanding talent gains varied experiences to foster their career progression.

Talent Recruitment Process



Talanta Association Caratana

Talent Acquisition Strategy		
Internship Program	University internship program operated to foster outstanding talent	
Diversity Expansion Scheme	Priority given to employment–protection candidates (such as those with disabilities or veterans) in accordance with relevant laws	
Experienced Employee Recuirtment	Expansion of direct sourcing to proactively recruit top talent	
Ad Hoc Recruitment	Continuous operation of internal and external talent pools to match candidates to positions and support organizational and individual development	
Internal Job Posting	Implementation of a job–rotation program to provide employees with career development and growth opportunities	

Regular Performance Evaluation and Compensation

Hanwha Advanced Materials' performance evaluation is built on MBO (Management by Objectives), with individual goals at its core. Mid-year reviews incorporate continuous feedback from leaders and peers, and year-end reviews deliver a definitive performance rating. To improve fairness, an absolute evaluation method is used, and the performance-management framework enables employees to request and receive feedback from both supervisors and peers.

Moreover, employees' goals are aligned with the organization's overall objectives, helping them understand the strategic direction and actively contribute to achieving targets and work contributions are measured quantitatively, and evaluation results are used to shape personal career growth plans and guide the compensation system.

Job Performance-based Growth Framework

Four-tiered role based ranking system and use of one position title 'pro'



Non-disclosure of ranks (CL) and promotion of an equal organizational culture



Opportunity for rapid growth based on performance without length of service by position



Performance evaluations focused on competencies/ contributions through multi-faceted assessments



Employee Performance Evaluation Process













pensations

Appendix

Talent Management

Talent Recruitment and Skill Development

Employee Skill Development Goal

Hanwha Advanced Materials actively develops employees' skills through the Great Challenger talent model, enabling them to set goals aligned with the company's strategic direction and to steadily deepen their expertise. By focusing on cultivating prepared leaders as a core strategy, the company instills a performance-driven mindset and a goal-oriented work approach, strengthening key capabilities to build a high-performance, highly engaged organizational culture.

To support long-term growth and engagement, Hanwha Advanced Materials fosters a learning-oriented, retention-focused environment, offers role-specific competency development opportunities, and ensures these developments translate into performance through technical insights. Building on this experience, the company plans to expand its enterprise-wide competency-development system, modernize work methods, and continuously drive organizational transformation..

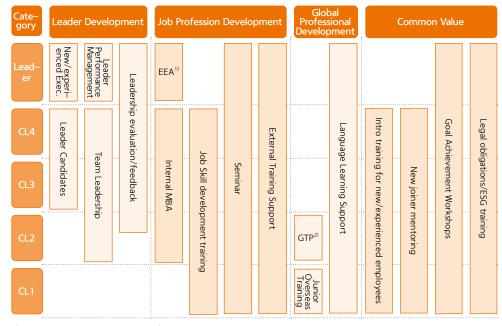
2024 Employee Skill Development Target

	Strategy	Targets	Remarks
01	Strengthen leadership skills to enhance organizational commitment	Regular implementation of leader performance management and leadership development programs for members Workshops to define leader–driven strategic priorities and strengthen execution skills	Leadership development (six times/year) Annual workshops
02	Improve intrinsic skills by advancing job expertise and innovating work methods	Tailored training to develop role–specific expertise and expand specialized talent Enhance problem–solving skills through field experience and cultivate in–house instructors Provide insights to drive innovation in work methods	Global position language program support Internal training (18 times/year)
03	Create a sustainable growth environment through synergy among employees	Present clear career growth paths for high-potential talent and strengthen retention Strengthen onboarding programs to support the quick adaptation of new hires and existing staff	1:1 mentoring for new employees Quarterly onboarding training

Employee Training Program

Hanwha Advanced Materials runs a comprehensive set of practical-skills training programs to boost employee performance and expertise. New hires receive onboarding to help them quickly adapt and demonstrate capabilities. All staff receive customized training aligned with career paths and job-specific skills, building core skills systematically. The curriculum emphasizes practical competencies such as business acumen, problem solving, and execution, while continually expanding the upskilling system. It also leverages the latest technological insights and applied learning to maximize training effectiveness. In response to global growth, a strategic learning system is in place to strengthen the global competitiveness of key talent.

Employee Skill Development Program



Talent Management

Organizational Culture Improvement

Fostering an Environment of Work-Life Balance

Hanwha Advanced Materials fosters a flexible, autonomous work environment to help employees balance work and family life, promoting a healthy culture of communication and collaboration. By implementing autonomybased flexible work arrangements such as staggered hours, flexible schedules, and designated working hours, tailored to the diverse job roles and personal circumstances, we pursue both work efficiency and work-life balance. Additionally, we also implement a range of family-friendly measures to boost employees' quality of life, including Dad's Leave for prospective fathers, exceeding statutory requirements, and a Mom's Package for pregnant employees, along with childcare and family-support programs. Sick leave, maternity leave, sabbatical leave etc., align with national laws across all sites, and these programs were recognized with family-friendly certification in 2023.

Furthermore, Hanwha Advanced Materials regards employee health as a vital asset and practices a culture of caring for the health of employees and their families through a company—wide health management system. Notably, the company offers comprehensive benefits such as health check-ups covering not only employees but also their spouses, as well as group accident insurance. Continuous communication with employees ensures ongoing monitoring of these programs and persistent efforts to enhance welfare standards.

Employee Welfare/Benefit Programs

Category

In-house Activities



Living Environment



Maternal Protection



Vacation/ Personal Development



Leisure and Health



Welfare Program

- · Commuter bus operation
- Company housing and dormitories
- · On-site cafeteria
- Specialized summer meals
- Work uniforms and safety gear
- Presentation of anniversary souvenirs
- In-house health promotion facilities
- · Company club activity support
- Handure (team-building) event support

· Housing loan

admission

entrance exam

Housing stability funds

expenses support

Relocation leave and moving

· Congratulatory gifts and tuition

· Gifts for children taking the college

support for children's school





- Reduced working hours during pregnancy/childcare period
- Guaranteed time for prenatal checkups and maternity/paternity leave
- Workplace daycare center
- · Mom's Package gifts and childbirth congratulatory financial support
- · Mom's Room and guaranteed nursing time

Flexible working hours system

- Sabbatical leave system
- Paternity leave
- Special paid leave
- Awards and vacation for long-term service (10/20/30 years)
- Overseas training system
- In-house language courses
- Foreign language learning expenses
- Certification acquisition support

Provision of welfare/refresh points

- Transportation/communication expenses
- Regular health checkups
- Enrollment in group accident insurance
- Health management office
- · Congratulatory money/leave/ flower wreaths, etc.
- Holiday ancestral rites expenses
- Discounted use of group company leisure programs (resorts, horseback riding, etc.)



Health & Safety | Talent Management | Human Rights Management | Supply Chain Management | Product Quality & Liability | Social Contributions



Talent Management

HANWHA ADVANCED MATERIALS

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Organizational Culture Improvement

Employee Satisfaction Survey

Hanwha Advanced Materials conducts an annual employee survey to support a healthy organizational culture and higher satisfaction. It is available on mobile and web platforms. In 2024, the survey ran for approximately three weeks from September to October, with around 71% of employees taking part. There are 55 questions across seven areas, including vision sharing, organizational aspects (strategy, leadership, systems), and personal aspects (work purpose, methods, competencies). The analysis identified weaknesses in the systems and work methods areas. Improvement tasks were established, an action plan was prepared and reported to the CEO, and these outcomes are being integrated into ongoing culture-enhancement initiatives, contributing to greater employee satisfaction.

Employee Satisfaction Survey Process



Employee Communication Channel Operation

Hanwha Advanced Materials maintains two-way communication with employees through meetings and workshops, enabling open dialogue about the current work environment, collecting feedback, and identifying improvement actions to continuously enhance the workplace. Each site operates a grievance committee to promptly address concerns, and open chat rooms for general staff give frontline voices a direct channel, reinforcing a culture centered on open communication..



General communication committee meeting



Labor union workshop

Governance

Talent Management

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

Labor Management System

Labor Relations Policy

Hanwha Advanced Materials is committed to building stable labor-management relations based on mutual trust and cooperation. Labor unions and labor-management councils operate at all business sites, actively reflecting employees' opinions in management. All major business sites are located in areas where the right to freely associate is guaranteed and are not subject to restrictions under local laws and regulations.

Legally mandated labor-management councils, with equal representation from labor and management, hold quarterly meetings to discuss employment, welfare, safety and health, and working conditions. The outcomes are shared transparently and implemented thoroughly. The Seoul headquarters introduced the Advanced Materials Open-Up (Communication Committee) in March 2024, an autonomous body for general and office workers to enhance culture and mutual gains. Representatives are chosen through direct, secret, and anonymous voting, and minutes are posted on the company intranet.

Furthermore, working conditions are systematically governed by collective agreements and employment rules. Workshops between labor unions and on-site workers reinforce a culture of open communication and cooperation in the workplace. Hanwha Advanced Materials formalizes communications with employee representative bodies under its human-rights and labor policies, which guarantee freedom of association, respect employees' rights, and foster a healthy labor-management relationship for a sustainable management environment.

Labor Relations Goal

Hanwha Advanced Materials is committed to improving and strengthening labor-management relations through clear goal setting. Currently, we are rigorously managing the implementation rate of labormanagement agreements compared to the previous year, and on a practical level, we have established and are operating KPIs for early settlement of wage agreements and wage levels.

Labor Management Activities

Labor Union

In line with the Act on the Promotion of Workers' Participation and Cooperation, Hanwha Advanced Materials runs a labor-management council that meets quarterly to discuss diverse issues, promoting ongoing mutual understanding and a collaborative labor—management environment.

2024~2025 Labor Management Council Status

Meeting Date	Key Discussion Points	
2024 Q1	Meal allowance increase Health care room/psychological counseling	 Certification wage increase Labor–management newsletter publication
2024 Q2	Summer coupon increase Business trip expense increase	Work bicycle repairGym equipment replacement/ maintenance
2024 Q3	Rest area PC installation Massage chair model replacement	Southeast district commuter bus route expansion Change room shoe locker replacement
2024 Q4	Substation restroom Late-night snack allowance increase	Work uniform distributionHealth checkup fee increase
2025 Q1	Sauna room equipment replacement Air purifier installation in vacant offices	Gym bicycle machine replacement Additional air conditioner installation I nchange rooms
2025 Q2	Club support fund increaseLate-night snack provision	Summer coupon price increaseFacility check-up at vacant spaces

Labor Union Registration Status

(As of 2024)

Subject for registration	Registered	Registration Rate
258 persons	258 persons	100%

Introduction

Appendix

Human Rights Management

Human Rights Management System

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

Human Rights Policy

Hanwha Advanced Materials places human rights at the core of its corporate management and adheres to international standards such as the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights (UNGPs), and the UN Global Compact Ten Principles through its human rights management policy. The HR department is solely responsible for human-rights-related tasks, and governance is strengthened by clearly defined roles within the organizational structure and job descriptions. Our human rights policy includes guidelines on child labor, forced labor, and the rights of local communities and Indigenous peoples. Child and forced labor are strictly prohibited across all sites, including international operations. During recruitment, applicants' ages are checked with official documents and hiring proceeds only if the legal working age is met. If minors are hired, we ensure compliance with national laws and implement protective measures; should child labor be identified, immediate actions are taken to protect the child's rights and interests. No recruitment fees or deposits are required, and employees have the freedom to change positions or resign.

All employees are guaranteed fair opportunities regardless of gender, race, nationality, age, religion, disability, social status, political views, family relations, pregnancy, or childbirth. An inclusive organizational culture that respects minorities and vulnerable groups is fostered. In line with principles of humane treatment, workplace harassment, sexual harassment, violence, verbal abuse, and bullying are strictly prohibited, and technical and administrative measures are implemented to protect employees' privacy and personal information.

In cases of human rights policy violations, fair and impartial disciplinary procedures are conducted in accordance with relevant laws and regulations, ensuring all parties have ample opportunity to present their case. The human rights policy is published on the website to support policy awareness and compliance among internal and external stakeholders.

Human Rights Management Policy [2]

Human Rights Management Goal

Hanwha Advanced Materials aims to maintain zero child labor and forced labor and is thoroughly implementing measures to prevent them. We deeply recognize the importance of protecting human rights for external stakeholders and plan to establish specific goals reflecting this in stages. To achieve sustainable management, we are reviewing various measures, including the establishment of a human rights management policy, and will build a system to protect and strengthen human rights based on mutual respect and trust with external stakeholders.

Human Rights Management Roadmap

	2024	2025	2026
Goal	Raise human rights management awareness and set policy foundation	Set and implement human rights management	Enhance human rights management
	Review human rights management policies	Enact and publicize human rights management policies within the company Operate human rights management system	Conduct human rights impact assessments once a year and incorporate improvements
Details	Designate dedicated human rights management team and its roles	through dedicated team Design human rights impact	
	Organize grievance procedure and inspect operational system	assessments Conduct human rights training once a year for all employees	Strengthen system for proactive response to human rights risks

Introduction

Human Rights Management

Human Rights Promotion Activities

Human Rights Training

Hanwha Advanced Materials conducts a range of human rights promotion activities for employees and other stakeholders to realize the value of human rights management. Each year we provide training on preventing workplace harassment, including sexual harassment, disability awareness, and personal data protection. Beginning in 2024, as part of our ESG management, we will introduce ESG training that includes human rights awareness training to further strengthen employees' sensitivity to human rights issues. We recognize our social responsibility regarding major human rights challenges such as child labor, forced labor, and human trafficking and plan to gradually expand related training to raise awareness. We will also continue DE&I (Diversity, Equity & Inclusion) training to foster a culture of mutual respect and create a discrimination-free workplace.

Employee Human Rights Training Status

Topic	Details	Participants/Subjects	Completion Rate	Period
ESG strategies that determine corporate survival	Understanding ESG management and practical application methods	631 persons/631 persons	100%	December 16–27, 2024 (2 weeks)

Wage Gap Elimination

Hanwha Advanced Materials operates a compensation system that ensures fair pay for employees performing the same duties and roles. We conduct regular pay audits to ensure equal pay, and these reviews help maintain and improve the fairness and transparency of its internal pay structure.

Workplace Discrimination and Harassment Prohibition

Hanwha Advanced Materials emphasizes fair development and promotion, building an organizational culture that supports growth for everyone, irrespective of gender, age, education, or background. Through ongoing system improvements, it increases transparency and equity and guarantees equal opportunities. The human rights policy sets out humane treatment standards and strictly prohibits workplace harassment, offering both anonymous and named reporting channels to prevent abuse. Violations are subject to fair, stringent disciplinary action, with robust privacy protections. Combined with preventive education, these measures foster a healthy, respectful work environment.

Whistleblowing Channel

Diversity Promotion Activities

Women Diversity Promotion

To strengthen diversity, Hanwha Advanced Materials is implementing policies to develop and retain female talent. These include initiatives that support skill enhancement and work-life balance, offering flexible work arrangements such as staggered working hours and flexible schedules to prevent career interruptions due to childcare. Ongoing efforts to cultivate female leaders through mentoring programs are helping to increase the share of female managers and address the structural barriers present in the manufacturing industry.

Employee with Disabilities Support

Hanwha Advanced Materials strives to grow alongside talented individuals from diverse backgrounds. Currently, nine employees with disabilities are working in our field departments and provide them with ongoing support with our business units to ensure they can perform their duties in line with their individual capabilities. We plan to gradually expand this tailored support to ensure more stable and sustainable employment for our employees with disabilities.

Human Rights Management

Human Rights Risk Management

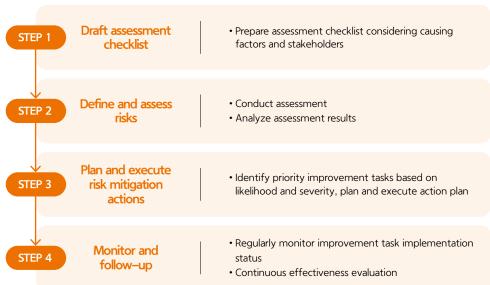
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Human Rights Impact Assessment

As part of its systematic management efforts to strengthen human rights protection, Hanwha Advanced Materials is preparing to design an assessment system aimed at conducting human rights impact assessments for vulnerable occupations and positions across all its business sites. The assessments will be led by the Human Rights Management Working Group and will be conducted in a variety of formats, including written and on-site assessments. The assessments will be conducted in line with domestic and international human rights standards, including guidelines from the National Human Rights Commission. They will identify and evaluate human rights risks for all stakeholders—employees, suppliers, and customers. Based on the results, Hanwha Advanced Materials will develop and implement risk-mitigation measures and establish a monitoring system, gradually building an operational foundation to minimize risks.

Human Rights Impact Assessment Process



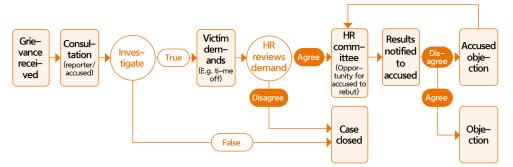
Human Rights Grievance Handling System

Hanwha Advanced Materials maintains multiple grievance-reporting channels to address and prevent employee complaints and potential human rights violations. Reports can be submitted through the company website's reporting center or via phone lines, anonymously or with the reporter's name. Each workplace appoints both male and female grievance counselors, and a grievance-handling committee oversees a counseling process that accounts for gender and language. Reported grievances are addressed promptly with priority given to protecting victims; information provided is kept strictly confidential to prevent secondary harm, and a strict non-retaliation policy is enforced. Outcomes are communicated individually to reporters, and in 2024 no human rights-related grievances were reported through the channels.

Additionally, the grievance reporting channels are utilized not only by internal employees but also as a means to respond to human rights risks such as child labor, forced labor, and concerns raised by external stakeholders. Accordingly, a response system linked with follow-up measures to strengthen internal controls and monitoring is being established. Moving forward, grievance handling records will be systematically logged and managed through an electronic system to enable organized history management, and a framework will be put in place to regularly evaluate the effectiveness of the grievance handling process, continuously enhancing the system's efficacy.

Grievance Channel

Grievnace Handling Process



Supply Chain Management

Sustainable Supply Chain Management System

HANWHA ADVANCED MATERIALS

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Sustainable Supply Chain Management Policy

Hanwha Advanced Materials is operating a supply chain management system that incorporates ESG factors to strengthen sustainable management capabilities of its suppliers. The Sustainable Supply Chain Management Policy applies to all suppliers, including primary suppliers, clearly stating the implementation of activities related to sustainable procurement principles considering environmental and social aspects, supplier code of conduct, supply chain ESG list evaluation system, and grievance handling.

Supply Chain Management Policy

Supplier Code of Conduct

Hanwha Advanced Materials specifies the Supplier Code of Conduct in contracts with all partners, aiming to ensure that they comply with the necessary laws and regulations for management and uphold high operational standards in areas such as human rights and labor, health and safety, environment, business ethics, and management systems. All suppliers and contractors delivering goods or services to Hanwha Advanced Materials or entering into other contracts must comply with this code of conduct. We also actively encouraging supply chain compliance, including with vendors, to ensure adherence to these standards.

Supplier Code of Conduct [2]

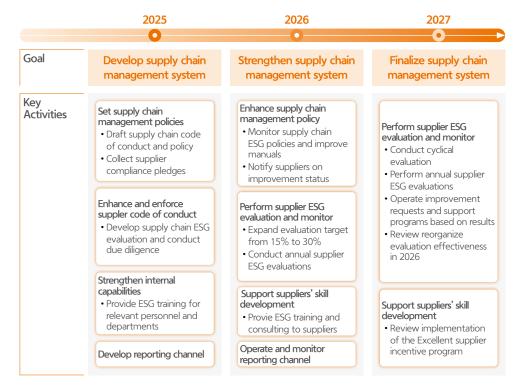
Supplier Management Guidelines

Hanwha Advanced Materials seeks to strengthen its supply chain by evaluating suppliers of essential materials through a methodical, objective process. The purchasing team and cost team, adhering to defined procedures and working with relevant departments, emphasizes quality, delivery reliability, and reasonable pricing when selecting suppliers capable of stable operations. A contract system that factors in ESG considerations is implemented to promote sustainability across the supply chain. This framework maintains the objectivity and rationality of supplier selection while delivering an excellent, stable supply network.

Supplier Management Guidelines [2]

Sustainable Supply Chain Management Goal

Hanwha Advanced Materials has established sustainable supply chain management goals that reflect environmental and social issues and is implementing systematic and proactive strategies to achieve them. By 2025, it plans to build a supply chain management system, strengthen it in 2026, and establish it fully by 2027. Through this process, we will continuously strive to create and continue to operate a sustainable supply chain from multiple perspectives, including compliance contracts with suppliers, codes of conduct, evaluation procedures, reporting channels, and ESG training.



Supply Chain Management | Product Quality & Liability | Social Contributions

Supply Chain Management

HANWHA ADVANCED MATERIALS

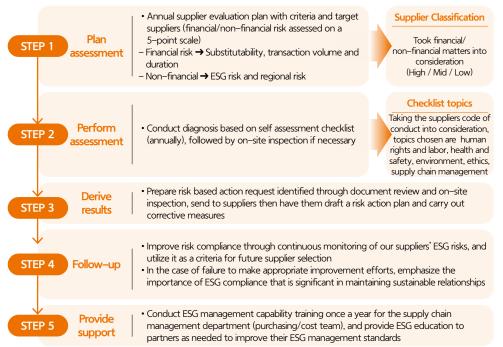
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Supply Chain Risk Management

Supply Chain Risk Assessment

Hanwha Advanced Materials has implemented a five-step supply chain ESG risk assessment process to strengthen environmental and social practices from suppliers. This process consists of establishing an evaluation plan, conducting diagnostics, deriving results and improvements, follow-up management, and supply chain support. In 2024, 13 out of 244 suppliers underwent the assessment, and the ESG risk assessment system for the supply chain will be enhanced in the future to establish a sustainable supply chain framework.

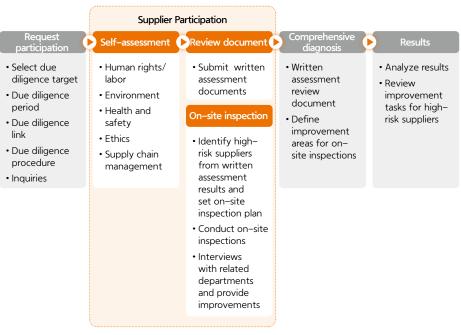
Supply Chain ESG Risk Assessment Process



Supply Chain ESG Due Diligence

To strengthen ESG management across its supply chain, Hanwha Advanced Materials conducted a written assessment in 2024 and plans to conduct an on-site audit in 2025. Through thorough reviews of environmental and social issues, we will assess the ESG management practices of our partners and proactively support and take action in areas requiring improvement. These plans will be planned and implemented through communication with relevant departments and suppliers...

Supply Chain ESG Due Diligence Process









Health & Safety | Talent Management | Human Rights Management | Supply Chain Management | Product Quality & Liability | Social Contributions

Supply Chain Management

Supply Chain Management Activities

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

Securing Supply Chain Diversity

Hanwha Advanced Materials is committed to enhancing suppliers' diversity and plans to improve related policies in the future. Through this, it aims to actively implement preferential policies for companies owned by women, minorities, and vulnerable groups. By collaborating with companies from diverse backgrounds, the company seeks to promote healthy competition, develop sustainable and innovative solutions within the supply chain, and improve the quality of products and services.

Additionally, we plan to introduce various systems and programs to promote workforce diversity, equity, and inclusion within the supply chain. It will also support suppliers in obtaining diversity certifications and link supplier diversity goals with performance rewards to drive tangible change and results.

Conflict Minerals Management

Hanwha Advanced Materials' conflict minerals management is a key initiative for responsible supply chain management. Based on the OECD Due Diligence Guidelines, we operate a conflict minerals policy and strive to ensure that the supply of key minerals, such as tin, tantalum, tungsten, and gold, is not linked to human rights abuses or environmental destruction. In particular, we conduct thorough monitoring of these minerals to ensure they are not included in our products. We work closely with our suppliers to strengthen ethical standards and conduct regular reviews to maintain a supply chain that respects human rights and the environment.

Conflict Mineral Policy [2]

Supply Chain Communication Channel

Hanwha Advanced Materials operates a 'Grievance Handling Channel' to facilitate smooth communication with suppliers, actively gathering feedback from external stakeholders through this platform. Reports can be submitted either anonymously or by identifying oneself, guaranteeing confidentiality, identity protection, and accountability. We also plan to strengthen our mutually beneficial partnerships by continuously communicating with our suppliers.

Grievance Handling Channel [2]

Grievance Reporting and Handling Process



Product Quality & Liability

Product Quality Management System

Product Quality Policy

Hanwha Advanced Materials prioritizes customer safety and is committed to ensuring product quality. We maintain and adhere to product safety and reliability through internal quality management policies at each company and business site. We also strictly adhere to quality standards throughout the entire process.



Product Quality Management Goal

Hanwha Advanced Materials prioritizes customer safety and quality and has established a systematic management plan to enhance product quality and customer satisfaction. To achieve this, we manage quality indices, such as the incoming defect rate and defect occurrence index, that meet customer quality requirements and set mid- to long-term quality goals. Furthermore, we aim to strengthen our quality management response, enhance our public image, and support order acquisition efforts by implementing annual improvement activities based on quality indices presented by our customers. We also have quantifiable goals, such as a 10% improvement in the customer quality index and zero defects in customer incoming deliveries, to strengthen our commitment to achieving these goals.

Product Quality Risk Management

Product Quality Management

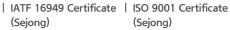
Hanwha Advanced Materials prioritizes customer safety and trust by operating a management system that ensures quality and safety throughout the entire product lifecycle.

From the early stages of product design, safety assessments are conducted to proactively prevent potential health and safety risks that may arise during product use, and decisions on mass production are based on these evaluation results. In particular, through FMEA (Failure Mode and Effects Analysis), the likelihood and impact of failures for each product are analyzed, enabling ongoing risk management activities focused on prevention. These efforts are carried out under a systematic quality management system certified by IATF 16949 and ISO 9001, and the company has maintained the 'Quality Competitiveness Excellence' certification by the Korea Standards Association for three consecutive years.

Additionally, to ensure the safety of hazardous chemicals contained in products, data is registered and approval procedures are managed using the IMDS (International Material Data System), thereby preventing safety incidents related to chemical substances.

Even during the product usage phase, to actively support customer safety, Safety Data Sheets (SDS) detailing the hazards of substances, handling methods, and storage conditions are systematically prepared for each product and provided to customers.







(Sejong)



ISO 9001 Certificate (Eumseona)



Excellent quality acknowledgement award

HANWHA ADVANCED MATERIALS

SUSTAINABILITY REPORT 2025

Product Quality & Liability

Product Quality Risk Management

Customer Safety Issue Inspection

Hanwha Advanced Materials is strengthening its management system for customer health and safety by thoroughly managing and inspecting hazardous substances (ferrous metals, VOC, etc.) that may affect customer safety, based on RoHS (Restriction of Hazardous Substances Directive). We verify product safety through test reports that confirm the presence or absence of these substances.



| Assessment Report

Claim Response Process

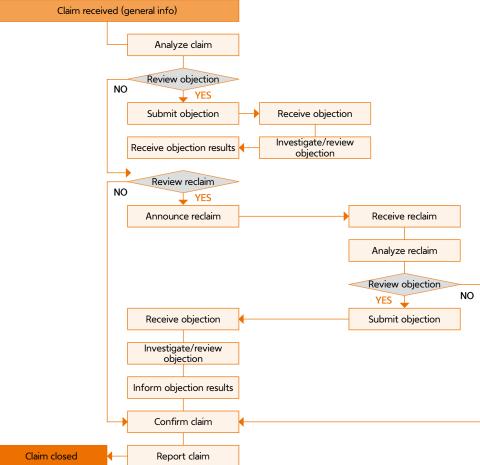
When product quality issues arise, Hanwha Advanced Materials works closely with our customers based on our claims management guidelines, tailored to the claim type, to promptly identify the problem and implement appropriate measures. These procedures are implemented monthly by each business and sales team, and a monthly claims status report is prepared to strengthen our management system. Through this systematic management process, we aim to achieve a 100% field claims resolution rate. Furthermore, we continuously pursue improvement initiatives to enhance customer trust and strengthen our quality competitiveness.

Customer Grievance Channel

Hanwha Advanced Materials recognizes the safety and quality of its customers' products as a critical responsibility and actively gathers customer feedback through various channels. In particular, for productrelated claims received from automotive OEM customers, the company promptly identifies the issues and implements corrective actions to prevent recurrence of similar cases and link them to quality improvement activities. Additionally, through regular customer satisfaction surveys, we thoroughly understand customers' expectations and demands regarding product safety and is also considering enhancing the survey items for more refined responses in the future.



Customer Grievance Channel Process



Social Contributions

Social Contribution Activities

Local Community Rights Protection

Hanwha Advanced Materials practices sharing through sincere and substantial social contribution activities based on Hanwha Group's philosophy of "Going Further, Together." Each workplace forms a "Hanwha Volunteer Corps," where all employees voluntarily participate in volunteer work at least once a year. Since 2002, employees have voluntarily donated a portion of their monthly salary, and the company supports this through a matching grant system to establish the "Bright World Fund." Through this, employees and the company jointly engage in various community contribution activities...

Indigenous Communities

While indigenous management does not apply domestically, Hanwha Advanced Materials thoroughly considers the rights of indigenous communities and their lands throughout all operations at its U.S. business sites. Accordingly, Hanwha Advanced Materials complies with all indigenous-related laws and regulations in each state.

Hanwha Advanced Materials



We support social contribution activities for vulnerable groups, the environment, and nonprofit organizations through a progressive fundraising system where employees voluntarily donate a fixed amount from their monthly salaries, and the company provides additional matching contributions.

Tree Pruning and Mowing

Pruning and mowing activities are being carried out in the Bugang Industrial Complex to prevent damage to neighboring residents' crops caused by tree pests and diseases



Eco-friendly Bean Bag Making

Making eco-friendly bean bags at the local children center using EPP materials



Environmental Cleanup Activities

Trail maintenance activities in collaboration with the Nature Conservation Council



Tree Planting Campaign

Launch event for the tree planting campaign among Sejong citizens to create a Citizens' Forest



Special Recognition

In 2024, Hanwha Advanced Materials partnered with the Korea Federation for Environmental Movements and received a ministerial commendation for its carbon-reduction efforts, including the Citizen Forest Creation and My Tree Ownership Campaign, which supported biodiversity and environmental conservation.





HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

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Introduction

Board of Directors

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

Board Composition

Board Status

As of March 2025, Hanwha Advanced Materials' board comprises three internal directors and two non-executive directors. The board serves as the highest decision-making body, responsible for matters required by law or the articles of incorporation, setting fundamental management policies, approving key business decisions, and overseeing the directors' performance.

(As of end of March 2025)

Board Composition Status

Category	Name	Gender	Career	Tenure
	In-Hwan Kim ¹⁾	М	Current CEO at Hanwha Advanced Materials Former Head of Polymer Department at Hanwha Total Energies	March 29, 2024 ~ March 2026 general shareholders' meeting
Executive Directors	Hyun Seock Kim	М	Current Planning Director at Hanwha Advanced Materials Former Head of SuperLite Department at Hanwha Advanced Materials	December 27, 2024 ~ March 2026 general shareholders' meeting
	Si Young Kong	М	Current Support Director at Hanwha Advanced Materials Former Head of Q Cell Division HR at Hanwha Advanced Materials	March 29, 2024 ~ March 2026 general shareholders' meeting
Non-executive	Chan Woo Lee	М	Current CEO at Glenwood Credit Former Senior Executive Vice President at Dominos Investment	March 29, 2024 ~ March 2026 general shareholders' meeting
Directors	Young Wook Lee	М	Current Operating Partner at Bain Capital Special Situations Former Global Sales Managing Director at Kolma Holdings	March 29, 2024 ~ March 2026 general shareholders' meeting

Board Operations

Board Activities

In 2024, Hanwha Advanced Materials held seven board meetings with an attendance rate of 100%, approving 31 agenda items. Such ESG-related reviews are strengthening our sustainability management system and refining decision-making processes.

2024 Board Activity Status



2024 ESG-related Board Activity Status

Date	Details
March 13, 2024	Board reporting and approval for health and safety related plans for 2024
May 20, 2024	GHG emissions related transaction approvals
June 25, 2024	Renewable energy related transaction approvals







Board of Directors | Ethics Management | Information Security

Ethics Management

Ethics Management System

Ethics Management Declaration

Hanwha Advanced Materials promotes stakeholder value through the ethics charter and ethical behavior guidelines rooted in the philosophy of trust, respect, innovation and the values of credit and loyalty. The framework emphasizes respect for customer feedback, fair competition and transactions, protection of employee rights, environmental and safety management, and social responsibility, while including anticorruption provisions that prohibit improper practices and the acceptance of money or entertainment. Practical implementation is supported by systems such as a payment linkage system for deliveries and compliance guidelines to protect trade secrets and technical information.

Ethics Management Declaration

Ethics Management Policy

Hanwha Advanced Materials has established an ethics management policy to fulfill its social responsibilities as a global company and support sustainable growth. The policy consists of three areas: employee ethics, fair competition and transactions, and realizing customer value. The employee ethics area covers bribery, solicitation, conflicts of interest, insider trading, workplace conduct, abuse of authority, documentation, and reporting. The fair competition and transactions area addresses antitrust, collusion, unfair competition, money laundering, intellectual property rights, tax compliance, mutual growth, fraud, and export controls. The customer value realization area focuses on customer safety and quality, counterfeit parts, information provision, and personal data protection.

Ethics Management Policy

Ethics Charter

In accordance with the ethics management policy, we have established a code of ethics. Through ethics management, our goal is to grow into a leading company of the 21st century, sharing achievements and values with customers, employees, suppliers, and shareholders. The charter consists of five key areas: creating customer value, creating value for suppliers, protecting employees' rights and interests, fostering desirable attitudes among employees, and creating value for the nation and society.

Ethics Charter [2]

Ethical Behavior Guidelines

To ensure the ethics charter is put into practice, Hanwha Advanced Materials has implemented an ethical behavior guidelines. These guidelines prohibit accepting economic benefits, require duties to be performed with integrity, and upholds fair trade practices, providing all employees with explicit behavioral standards to follow in their work

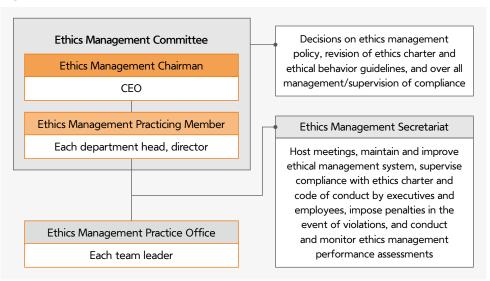
Ethical Behavior Guidelines [2]

Ethics Management Organization

Hanwha Advanced Materials has established a systematic operational framework centered on a dedicated Compliance Team and the Ethics Management Committee to strengthen ethics management. In particular, the organizational structure, including the CEO, is transparently disclosed through official channels. Moving forward, we plan to further enhance our ethics management standards by linking this with strengthened governance disclosures in the Sustainability Report.

Hanwha Advanced Materials has formed an Ethics Management Committee to ensure employees comply with the ethics charter and to promote ethical corporate practices. The committee is scheduled to meet quarterly and may convene additional meetings as needed at the discretion of the chair, the members, or the Ethics Management Secretariat. It is chaired by the CEO, with department heads and division chiefs as members, and the head of the Ethics Management Secretariat serves as the secretary.

Organizational Structure



Governance

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Ethics Management

HANWHA ADVANCED MATERIALS

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Ethics Management System

Ethics Management Goal

Hanwha Advanced Materials has established ethical principles within its ethics management policy to foster a transparent and ethical corporate culture. To proactively address ethical risks such as corruption, conflicts of interest, fraud, and money laundering, we are strengthening internal controls with core goals of fair trade and anti-corruption, and internalizing compliance functions. A proactive response process has been created for departments and operations with high corruption risk, and the risk-prevention system is being enhanced through increased internal reporting and a prevention-oriented culture. Furthermore, to promote fair and transparent dealings with suppliers, Hanwha Advanced Materials has committed to a compliance and anti-corruption pledge and incorporates ethical risks into its supplier selection and assessment processes. All employees undergo ethics-management training and case studies to internalize compliance and apply ethical standards in decisions. Ongoing monitoring includes updates to the anti-corruption manual, regular inspections, and improvements in high-risk areas.

Ethics Management Target

Anti-corruption and Fair Trade

Regular anticorruption evaluation



 Achieve implementation rate of over 80% for improvement measures in highrisk tasks

department

Enhance internal controls



- Submit 100% of ethics management self-checklist semiannually
- Achieve over 80% completion/ satisfaction rates for handling received reports
- Zero serious corruption/ conflicts of interest cases

Establish fair trade relations



- Obtain 100% code of ethics compliance pledges from new and key suppliers
- Ensure 100% application of fairness evaluations in selecting new suppliers

Compliance Functions Internalization

2024 ethics training



- Achieve 100% ethics training completion rate
- Achieve 100% ethics training completion rate for new/experienced hires
- Achieve 100% ethics training completion rate for key suppliers

Monitor/ due diligence



- Conduct regular ethics management monitoring annually
- Achieve over 95% implementation rate for internal audit/inspection improvements

Ethics Management Activities

Ethics Management Training

Hanwha Advanced Materials conducts regular training on its Code of Ethics to deepen employees' understanding of ethical management and foster an integrity-driven culture by communicating its ethics policies and implementation plans. To promote fair trading, the company also provides training on consignment fair trade. This training clarifies the definitions of consignments and consignment transactions, compares them with applicable laws, covers corporate compliance requirements, explains penalties for violations, and outlines how the Consignment and Consignment Dispute Resolution Council operates. We provide training to raise awareness of unfair trade practices among employees. We maintain a repository of internal regulations and standard subcontracting agreements related to fair trade to ensure compliance with laws and regulations and to manage corruption risks. Ethics training is mandatory for new hires, and all employees must sign a Code of Ethics pledge to reinforce ethical management.

Employee Ethics Training Status

Subject	Details	Number of sessions	Participants	Completion Rate
All employees	Ethical principles guidelines	2	380 persons	100%
All employees	Ethics compliance management regulations for suppliers	1	380 persons	100%
All employees	Ethical management (anti-corruption, fair trade, regulation compliance, work ethics, etc.)	1	380 persons	100%
Experienced hires	HAMC Ethical Management	2	25 persons	100%
Interns	HAMC Ethical Management	1	6 persons	100%

Supplier Ethics Training Status

Subject	Details	Number of sessions	Participants	Completion Rate
Key suppliers	Compliance pledge signing	1	501 persons	99%





Ethics Management Information Security

Ethics Management

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

Ethics Risk Management

Internal Accounting Management System

Hanwha Advanced Materials monitors the systematic operation of its Internal Controlled Financial Reporting (ICFR) system, ensuring the reliability of its financial statements and transparency in accounting. Consequently, we monitor compliance of its employees with regulations and procedures...

In particular, to prevent the possibility of misstatements due to fund fraud, we plan to establish fund fraud control items in accordance with the 'Fund Fraud Control' disclosure standards starting in 2025 and are designing and operating them at the PLC (Process Level Control) level.

Additionally, to ensure the effectiveness and objectivity of the internal accounting management system, we receive regular reviews of the entire system from external auditors.

Fraud Risk Assessment

Hanwha Advanced Materials operates a fraud risk assessment process to prevent fraudulent activities and foster a transparent organizational culture. Based on this, we regularly evaluate fraud risk factors and enhance employees' awareness of fraud risks, thereby strengthening the foundation for sustainable ethical management.

Fraud Risk Assessment Process



Anti-bribery Due Diligence and Internal Controls

Hanwha Advanced Materials is strengthening internal controls by regularly requiring all executives and employees to sign an anti-corruption pledge, and also requiring new suppliers to sign an ethics compliance pledge. Furthermore, we utilize an electronic bidding system to prevent potential irregularities during the bidding and procurement process. Furthermore, we plan to systematically manage the potential for corruption through regular risk assessments of high-risk suppliers.

Social

Additionally, to mitigate potential corruption risks in transactions with third parties, we are developing measures to integrate anti-corruption topics into our supply chain due diligence, and gradually rolling out an evaluation system for each project.

Sensitive Transaction Approval Process

Hanwha Advanced Materials operates an internal process to report or obtain approval for sensitive transactions to ensure transparency and fairness. Transactions between the company and its affiliates undergo a review process according to the Internal Transaction Review Committee's operating regulations. In accordance with Article 5, Chapter 2 of the Code of Ethics, if any gifts or benefits are received, a report detailing the receipt of gifts, entertainment, or hospitality must be submitted to the responsible executive.





Board of Directors

Ethics Management | Information Security

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Ethics Management

Ethics Risk Management

Ethics Whistleblowing Process

Hanwha Advanced Materials maintains reporting and consultation channels to reinforce ethical management. The whistleblowing guide lists reportable cases such as improper solicitations and bribery, unfair instructions, and violations of internal regulations, and explains the procedures along with whistleblower protections to ensure reporter safety and process transparency. Employees and stakeholders can report anonymously or with their names, and all reports undergo thorough internal verification and investigation.

The reporting channel prohibits acts that reveal or imply the identity of the whistleblower without their consent (confidentiality protection), protects against disadvantages or discrimination from business relationships or affiliated departments due to, statements, and submission of materials (identity protection), and notifies the whistleblower of reduced disciplinary action (reduction of responsibility) in the event that their negligence or error is discovered in relation to the report.

Introduction

Ethical Management System

Hanwha Advanced Materials is pursuing international-standard certifications as part of its medium- to long-term strategy to enhance ethical management. It has set up internal initiatives to achieve ISO 37001 (Anti-Bribery Management) and ISO 37301 (Compliance Management). Through thorough preparation, we plan to obtain these certifications to reinforce credibility with external stakeholders.

3 Whistleblower Protection Principles

01. Confidentiality

Prohibit disclosing/implying identity of whistleblowers without consent

02. Anonymity

Protect from retaliation/discrimination by business partners or affiliated departments from whistleblowing, testimony or material submission

03. Liability

Mitigate disciplinary action against whistleblowers if fault/errors are found related to their report

Reporting Procedure and Whistleblower Protection Process













Key Reporting Channels



Social



Information Security System

Information Security Policy

Hanwha Advanced Materials has established internal regulations, guidelines, and policies related to information security to protect information assets and manage personal data. Through internal security rules, employees are guided to consistently comply with security policies. Additionally, personal data collection and usage policies are regularly updated to reflect changes in relevant laws and security threat trends, establishing a systematic information security management system.

Additionally, to proactively address information security risks, we conduct regular internal audits and risk management, and strengthen our management system through information security activities such as vulnerability assessments and penetration testing exercises to prevent security threats in advance.

To prepare for potential information system failures, we maintain a continuous data-backup plan to support restart and recovery, with backups stored securely on a regular basis. In the event of an information security incident, we retain access and operation logs in accordance with the Information Security Management Standards for Information System Log Management, categorize them, and keep them for periods ranging from one year to more than five years, depending on the type of information, to facilitate root-cause analysis and accountability.



Information Security Goal

Hanwha Advanced Materials is conducting information security level assessment in compliance with ISO and ISMS standards at the group-level and monitoring the results to strengthen information security. Based on the 2024 evaluation results, we have set a goal to improve scores in the following year. By linking the information security level assessments with holding the Information Security Committee, raising awareness of information security, and strengthening information system management, we are advancing our information security management system.

Information Targets and Performance



Management Security Improvement Plan

Category	Category Improvement Areas	
Organization operations	Annual Information Security Committee meeting	Second half of the year
Personnel security	Strengthen compliance with confidentiality clauses for subcontractors	First half of the year
Awareness enhancement	All office security inspections	First/second half of the year

Information System Security/Operation Improvement Plan

Category	Improvement Areas	Period
Access control	Strengthen database access rights management	Second half of the year
Development security	Implement separation between development PCs and servers	Second half of the year
Server security	Enhance security reviews for new servers	First half of the year

Board of Directors | Ethics Management | Information Security

Social





Information Security Activities

Information Security Training

Hanwha Advanced Materials runs a structured information security training program to raise awareness where all employees sign an Information Security Pledge committing to policy compliance. Biannual training includes simulated phishing exercises to prevent breaches, and new hires receive a security guide outlining key policies, including document security and USB controls. We regularly share security trends and incidentresponse measures and inform staff of policy changes to promote and compliance.

2024 Information Security Training Status

Subject	Details	Number of sessions Participants		Completion Rate
All employees (domestic)	Personal information protection training	Once	635 persons	100%
New hires	Security guidance provision	35 times	35 persons	100%
All employees (subject to those who have email accounts)	International/ overseas hacking mail training	Twice	919 persons	100%
Subject employees	Training subject for violators	Twice	107 persons	100%
Subject employees	Data breach and leakage training	Always	26 persons	100%

Information Security Risk Management

Information Security Risk Assessment

Hanwha Advanced Materials conducts an annual information security assessment to verify compliance with applicable laws, information protection guidelines, and other regulations, and to review the operation of the information security management system (ISMS). The 2024 assessment covered the headquarters and all sites, focusing on information security governance, physical security, information system security management and operations, and personal data protection. Based on the findings, remediation plans addressing identified vulnerabilities were developed and reported to the Chief Information Security Officer (CISO) and senior management.

Information Security Level Assessment Process

	Category	Details
Level 1	Establish information security level assessment plan for current year	 Information security officer shall establish an assessment plan for the current year's information security level, including timing and scope, and report to the CISO within the first quarter
Level 2	Information security level assessment	 Annual assessment are carried out in areas such as information security management, physical security, information system security management, information system operations, and personal information protection
Level 3	Analyze assessment results and develop	Calculate assessment scores and target scores for each areas, analyze the distribution of management levels by field ad diagnose overall information security level by categorizing security management maturity into five stages
	improvement plans	Maintain security management maturity at level 4 or above(compliant) through continuous management and set plans to improve vulnerabilities
Level 4	Report and follow–up	• Report assessment results to management

Board of Directors | Ethics Management | Information Security

Information Security

Information Security Risk Management

Confidential Information Management and Third-Party Data Protection

Hanwha Advanced Materials maintains a comprehensive management system to protect all information assets, including confidential company data and third-party information. It sets global standards for storage, backups, and retention, and organizes documents into five retention categories in line with documentmanagement regulations. Regulations on processing and disposing of personal and third-party data are publicly disclosed on the company website. Employee personal data is collected only with prior consent and processed in accordance with applicable laws.

Based on internal assessment criteria in compliance with ISO and ISMS standards, Hanwha Advanced Materials conducts structured security management by annually reviewing 57 control items across all sites in administrative, physical, and technical areas. For personal information protection, it applies multilevel standards (three or more levels) covering each stage—collection, use, provision, retention, and destruction. Findings drive improvement tasks and action plans, including related technical investments to continually raise security levels. Additionally, admins of critical systems regularly review server and database management, and an ongoing inspection and reporting system is maintained through server access monitoring.

Through these efforts, we proactively prevent unauthorized access and data leakage risks, striving to protect the rights and interests of data subjects and to enhance the trust of stakeholders.

Privacy Policy [2]

Information Security Incident Prevention Process

Hanwha Advanced Materials operates the following procedures to prevent information security incidents in advance and systematically manage security risks.

Incident Prevention Process

Category	Details
Category	Details
Regular audits and vulnerability	 Annual information security inspections with external experts diagnosing OS/infrastructure, conducting penetration tests, identifying vulnerabilities, and implementing improvements within the year
assessments	 In 2024, security assessments including overseas subsidiaries identified vulnerabilities in network segmentation, account privilege management, and server security
Establish and implement improvement plans	 Priorities for identified vulnerabilities are set, with phased improvements underway, including partner security checks, stronger encryption policies, and test-data management procedures
Continuous management system operations	Effectiveness is ensured by regular monitoring through information security working groups and committees, with ongoing enhancements to security policies

Board of Directors | Ethics Management | Information Security



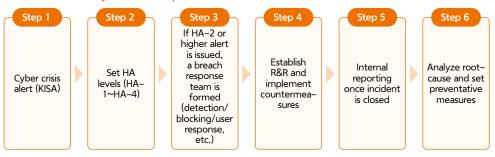
Information Security

Information Security Risk Management

Information Security Incident Response

Hanwha Advanced Materials has established a formal information security incident response process to ensure swift and systematic action in the event of a breach of confidential information. The process uses Korea Internet & Security Agency (KISA) cyber crisis alerts to determine Hanwha Alert (HA) levels and trigger the incident response system accordingly. When HA–2 or higher is issued, the Information Security Center and the Information Security Department form an incident response team with clearly defined roles in detection, prevention, and user response. After response actions are complete, the root cause and results are reported internally and used to prevent similar incidents in the future. This system strengthens our ability to respond to information security incidents and continually safeguards the organization's information assets.

Information Security Incident Response Proces



Information Security Whistleblowing Process

Hanwha Advanced Materials operates a whistleblowing system that allows not only employees but also external stakeholders to report information security breaches and related concerns. Employees are strictly prohibited from concealing facts or resolving issues on their own when security incidents occur and are required to immediately report to their department head or the dedicated information security department. To ensure prompt reporting and systematic response, an online reporting channel is provided, supporting external stakeholders such as suppliers and customers to report information security incidents or suspicious signs. Upon receiving a report, the company investigates the facts according to internal procedures, and if violations are confirmed, necessary follow—up actions such as disciplinary measures are taken in accordance with relevant regulations. Hanwha Advanced Materials will continue to strengthen transparency and responsiveness related to information security going forward.

Information Security Whistleblowing Process Report received Initial investigation False Violator fact check True Inform Ethics Management Committee (opportunity for the accused to explain) Report results

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Social

ESG Data | GRI Standards Index | UN SDGs | Association/Membership Status | GHG Verification Statement | Independent Assurance Statement

ESG Data

Consolidated Financial Data

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

Summary of Consolidated Financial Statement

Category	Unit	2022	2023	2024
Current assets	KRW million	343,433	621,936	552,044
Non-current assets	KRW million	255,989	580,649	863,059
Total assets	KRW million	599,422	1,202,585	1,415,103
Current liabilities	KRW million	101,427	305,523	435,547
Non-current liabilities	KRW million	55,916	123,660	157,926
Total liabilities	KRW million	157,343	429,183	593,473
Capital stock	KRW million	29,140	41,129	41,129
Capital surplus	KRW million	334,676	652,688	652,688
Other equities	KRW million	_	-31,611	-6,798
Accumulated other comprehensive income	KRW million	-	23,126	61,749
Earning surplus	KRW million	78,262	88,070	72,861
Non-controlling interest	KRW million	_	_	_
Total equity	KRW million	442,078	773,402	821,630
Total liabilities and equity	KRW million	599,422	1,202,585	1,415,103

Summary of Consolidated Income Statement

Category	Unit	2022	2023	2024
Revenue	KRW million	48,361	558,240	1,082,121
Cost of sales	KRW million	44,741	460,238	918,568
Gross profit	KRW million	3,620	98,002	163,553
Selling, general, and administrative expenses	KRW million	7,729	65,394	142,279
Operating profit	KRW million	-4,109	32,608	21,275
Other income	KRW million	471	14,026	49,581
Other expenses	KRW million	-3,841	-14,478	-49,030
Financial income	KRW million	57	6,727	6,397
Financial costs	KRW million	-3	-1,409	-11,250
Profit before income taxes	KRW million	-7,425	37,473	16,973
Income tax expenses	KRW million	-1,687	7,431	-492
Net profit for the year	KRW million	-5,738	30,042	17,465

ESG Data

Environment

GHG Emissions

	Category	,	Unit	2022	2023	2024
	Total		tCO₂eq	47,303.4	42,978.0	41,861.3
	Scope 1	Subtotal	tCO₂eq	10,219.8	9,850.6	10,169.5
GHG emissions ¹⁾ (Scope 1, 2)		Subtotal	tCO₂eq	37,083.6	33,127.5	31,691.8
(Scope 2	Electricity	tCO₂eq	37,081.4	33,127.5	31,691.8
		Steam	tCO₂eq	2.2	0	0
GHG emissions	Scope 1		tCO₂eq/KRW 100 million	1.3	1.8	0.9
intensity ²⁾	Scope 2		tCO₂eq/KRW 100 million	4.8	5.9	2.9
	Total		tCO₂eq	296.9	19.4	122.0
GHG emissions reduction	Scope 1 reduction		tCO₂eq	0	0	122.0
	Scope 2 redu	ıction	tCO₂eq	296.9	19.4	0
	Total		tCO₂eq	226,562.0	247,660.0	252,845.0
	Category 1. Purchased goods and services		tCO₂eq	216,855.5	204,960.0	209,483.0
	Category 2.C	apital goods	tCO ₂ eq	15.4	7.0	69.0
	Category 3. Fuel and energy related activities		tCO₂eq	4,442.4	20,004.0	20,174.0
GHG emissions	Category 4. Upstream transportation and distribution		tCO₂eq	1,993.2	2,048.0	1,986.0
(Scope 3)	Category 5. Wasted generated in operations		tCO₂eq	528.1	955.0	753.0
	Category 6. I	Business travel	tCO_2eq	925.4	943.0	1,393.0
	Category 7. I	Employee commuting	tCO₂eq	300.8	262.0	295.0
	Category 9. Downstream transportation and distribution		tCO₂eq	1,501.2	8,785.0	9,296.0
	Category 12. End-of-life treatment of sold products		tCO₂eq	0.0	9,696.0	9,396.0

¹⁾ Rounded to the first decimal place

Energy Consumption

	Category		Unit	2022	2023	2024
Total energy cor	nsumption		GJ	1,077,769.9	950,885.6	928,798.2
Energy intensity	,1)		GJ/KRW 100 million	138.9	170.3	85.8
Energy reduction	n		GJ	6,020	404	2,399
		Total	GJ	200,207.8	193,091.2	199,378.6
		Gasoline	GJ	1,577.1	1,203.1	1,192.1
	Non-renewable	Diesel	GJ	2,351.0	2,206.1	2,099.6
	energy	Kerosene	GJ	0	0	0
Direct energy	consumption	LNG	GJ	196,105.0	189,463.4	195,533.2
3,		LPG	GJ	174.7	218.6	553.7
		Others	GJ	0	0	0
	Renewable energy consumption	Total	GJ	0	0	0
	Total ¹⁾		GJ	880,843.4	757,794.4	729,419.6
		Subtotal	GJ	877,562.1	692,243.3	662,242.7
	Consumption	Electricity	GJ	774,865.7	692,240.3	662,242.7
		Steam	GJ	52.0	3.0	0
to allow at an array.		Total	GJ	117,425.1	109,358.6	111,628.3
Indirect energy	Self-generated	Electricity	GJ	N/A	N/A	N/A
		Steam	GJ	117,425.1	109,358.6	111,628.3
		Total	GJ	14,780.6	43,807	44,451.4
	Sold	Electricity	GJ	0.0	0.0	0.0
		Steam	GJ	14,780.6	43807.5	44,451.4
Total		%	0	0	0	
Renewable ener	gy consumption	Electricity	%	0	0	0
rate		Fuel	%	0	0	0
		Steam	%	0	0	0

¹⁾ Consolidated revenue basis

²⁾ Consolidated revenue basis

²⁾ Usage = Self-generated + Sold

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ESG Data

HANWHA ADVANCED MATERIALS SUSTAINABILITY REPORT 2025

Environment

Water Consumption

	Category		Unit	2022	2023	2024
	Total		ton	471,680.0	455,771.8	442,987.0
		Freshwater	ton	471,680.0	455,771.8	442,987.0
		Surface water	ton	0	0	0
	By category	Groundwater	ton	0	0	0
Withdrawal		Seawater	ton	0	0	0
		Other	ton	0	0	0
	By source	3rd party	ton	471,680.0	455,771.8	442,987.0
	Withdrawal from areas	n high water stress	ton	N/A	N/A	N/A
	Total		ton	156,334.2	162,436.7	196,943.4
	-	Freshwater	ton	156,334.2	162,436.7	196,943.4
Withdrawal	By type	Other	ton	N/A	N/A	N/A
(wastewater) ¹⁾	By discharge type	3rd party	ton	156,334.2	162,436.7	196,943.4
	Discharge from areas	high water stress	ton	N/A	N/A	N/A
Consumption			ton	249,932.0	240,665.3	255,117.0
	Reused amount	t	ton	0	0	0
Reuse	Reused ratio		%	0	0	0

¹⁾ Sejong and Eumseong plant only

Eco-friendly Operations

Category		Unit	2022	2023	2024
investment Eco-friendly	Environmental investment	Million KRW	747	481	394
	Eco-friendly investment ratio compared to sales	%	0.10	0.09	0.04
Eco-friendly fleet	Eco-friendly fleet ownership ratio	%	0.0	8.0	8.0

Pollutants

	Category	Unit	2022	2023	2024
	Total organic carbon (TOC)	ton	10.6	6.6	10.4
_	Biochemical oxygen demand (BOD)	ton	8.1	8.8	11.4
	Suspended solids (SS)	ton	3.8	2.3	3.0
	Ozone-layer depleting substances (ODS)	ton	N/A	N/A	N/A
Air	Nitrogen oxides (NOx)	ton	3.7	4.4	5.3
	Sulfur oxides (SOx)	ton	0.0	0.2	0.5
	Particulate matter (PM)	ton	3.7	0.2	3.3
Hazardous substance	Consumption	ton	0.4	40.8	33.2
	Chemical discharge	Ton	0	0	0

Biodiversity¹⁾

Category		Unit	2022	2023	2024
	Critically endangered	Species			0
	Endangered	Species			11
Endangered species near sites	Vulnerable	Species	Analysis Not	18	
	Near threatened	Species		22	
	Least concern	Species	•		455

¹⁾ Conducted endangered species analysis starting from 2024

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Environment

Waste and Raw Materials

	Category		Unit	2022	2023	2024
	Total		ton	957.5	3,706.2	5,453.1
Waste generated	D t	Designated	ton	2.0	27.8	74.5
	By type	General	ton	955.5	3,678.4	5,378.6
Waste disposed	Total		ton	957.5	3,706.2	5,453.1
		Subtotal	ton	2.0	27.8	74.5
	Durtum	Landfill	ton	0	0	0
	By type	Incineration	ton	2.0	10.5	13.8
Designated waste		Other	ton	0	17.3	60.7
	By method	Subtotal	ton	2.0	27.8	74.5
		Internal	ton	0	0	0
		External	ton	2.0	27.8	74.5
		Subtotal	ton	955.5	3,678.4	5,378.6
	Duttung	Landfill	ton	5.6	269.0	384.0
	By type	Incineration	ton	0	89.8	55.9
General waste		Other	ton	949.9	3,319.6	4,938.7
		Subtotal	ton	955.5	3,678.4	5,378.6
	By method	Internal	ton	0	0	0
		External	ton	955.5	3,678.4	5,378.6

	Category		Unit	2022	2023	2024
	Total		ton	949.9	3,336.9	4,999.4
Recycled waste	Waste-to- resource ratio		%	99	90	92
		Total	ton	0.0	17.3	60.7
	By type	Processed for reuse	ton	0	0	0
Designated	, ,,	Recycled	ton	0.0	17.3	60.7
waste		Other	ton	0	0	0
	D d	Internal	ton	0	0	0
	By method	External	ton	0.0	17.3	60.7
	By type	Total	ton	949.9	3,319.6	4,938.7
		Processed for reuse	ton	0	0	0
General waste		Recycled	ton	949.9	3,319.6	4,938.7
Gerrerar Waste		Other	ton	0	0	0
		Internal	ton	0	0	0
	By method	External	ton	949.9	3,319.6	4,938.7
	Total		ton	2,901.0	2,379.0	2,685.0
	Renewable mate	rial	ton	2,901.0	2,379.0	2,685.0
Raw material usage		Subtotal	ton	0	0	0
asage	Non-renewable material	Aluminum	ton	0	0	0
	material	Steel	ton	0	0	0
D 1	Reused raw mate	erial	weight	0	0	0
Reused material	Reused material	use ratio	%	0	0	0

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Social

Employee Status

	C	ategory		Unit	2022	2023	2024
Total no. of employees ¹⁾				Persons	635	638	686
	Total			Persons	3	3	3
	Gender	Male		Persons	3	3	3
Executivies ²⁾	Gender	Female		Persons	0	0	0
Executivies		Under 30		Persons	0	0	0
	Age	30 to 50		Persons	1	0	0
		Over 50		Persons	2	3	3
	Total			Persons	632	635	683
		Total		Persons	569	580	618
			Subtotal	Persons	569	580	618
		Gender	Male	Persons	506	517	551
			Female	Persons	63	63	67
			Subtotal	Persons	569	580	618
	Permanent	Nationality ³⁾	Korea	Persons	549	555	588
		rvationality	America	Persons	9	15	20
			Others	Persons	11	10	10
Employees			Under 30	Persons	58	64	67
Litibioyees		Age	30 to 50	Persons	331	332	358
			Over 50	Persons	180	184	193
		Total		Persons	63	55	65
			Subtotal	Persons	63	55	65
		Gender	Male	Persons	58	51	63
	Contract		Female	Persons	5	4	2
	COITHACL		Subtotal	Persons	63	55	65
		Nationality	Korea	Persons	60	50	60
		rvationality	America	Persons	2	3	3
			Others	Persons	1	2	2

	Category				Unit	2022	2023	2024
		Total			Persons	632	635	683
			Total		Persons	42	43	45
				Subtotal	Persons	42	43	45
			Gender	Male	Persons	42	43	43 45 43 45 0 0 43 45 0 0 27 25 16 20 92 638 92 638 25 569 67 69 92 638
		Team leader level		Female	Persons	0	0	0
		and above		Subtotal	Persons	42	43	45
			Age	Under 30	Persons	0	0	0
	_		Age	30 to 50	Persons	26	27	43 45 0 0 27 25 16 20 92 638 92 638 25 569 67 69
	By position			Over 50	Persons	16	16	20
	F		Total		Persons	590	592	638
Employees				Subtotal	Persons	590	592	638
			Gender	Male	Persons	522	525	569
		Staff		Female	Persons	68	67	69
		Starr		Subtotal	Persons	590	592	638
			٨٠٠	Under 30	Persons	90	95	102
			Age	30 to 50	Persons	313	310	638 569 69 638 102 341
				Over 50	Persons	187	187	195
	Non-affiliat	ed workers			Persons	0	0	0
	Vulnerable	Employmer disabilities	nt rate of p	ersons with	%	1.7	1.4	1.3
	group	National vet	teran		%	2.4	2.0	1.9

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Social

Recruitment and Turnover

	Cate	egory	Unit	2022	2023	2024
	Total		Persons	95	46	61
	New hire ra	New hire rate		16.7	7.9	9.9
	Gender	Male	Persons	81	40	53
New hires	Gender	Female	Persons	14	6	8
		Under 30	Persons	38	14	12
	Age	30 to 50	Persons	56	31	49
		Over 50	Persons	1	1	0
	Total		Persons	81	65	53
	Gender	Male	Persons	78	56	44
	Gender	Female	Persons	3	9	9
		Under 30	Persons	29	34	27
T	Age	30 to 50	Persons	35	22	19
Turnover		Over 50	Persons	17	9	7
	December	Korea	Persons	81	65	53
	By region	Czech	Persons	0	0	0
	Turnover ra	te	%	12.8	10.2	7.8
	Voluntary t	urnover rate	%	10.7	9.1	7.0

Non-discrimination

Category		Unit	2022	2023	2024
Discrimination cases		Cases	0	0	0
Discrimination	Under investigation	Cases	0	0	0
management status	Action plan established	Cases	0	0	0
	Action completed	Cases	0	0	0

Parental Leave

Cate	egory	Unit	2022	2023	2024
	Total	Persons	149	142	118
Subject employees	Male	Persons	127	121	99
	Female	Persons	22	21	19
	Total	Persons	7	6	5
Used employees ¹⁾	Male	Persons	3	0	3
	Female	Persons	4	6	2
	Total	Persons	2	4	6
Returned employees ¹⁾	Male	Persons	1	1	1
	Female	Persons	1	3	5
Employees with over	Total	Persons	3	2	4
one year of service since	Male	Persons	1	1	1
returning	Female	Persons	2	1	3
	Total	%	100	100	100
Return rate from leave	Male	%	100	100	100
	Female	%	100	100	100

¹⁾ The number of employees who used/returned from parental leave is calculated only for those who used/returned from leave while employed (retirees excluded)

Employee Satisfaction Survey

Category	Unit	2022	2023	2024
Employees participated	Persons	486	450	484
Employee participation rate	%	76.5	70.5	70.6

Employee Grievance Status

Category	Unit	2022	2023	2024
Received grievance cases	Cases	0	0	0
Resolved grievance cases	Cases	0	0	0

ESG Data

Social

Compensation System

	Category	Unit	2022	2023	2024
Salary rate	Male to female salary rate	%	41	58	68
	Minimum wage ratio compared to the statutory minimum wage	%	154	153	154
	Total	Thousand KRW	80,134	83,063	84,723
Average salary pay	Make	Thousand KRW	83,518	86,627	88,052
10.00	Female	Thousand KRW	47,313	51,858	55,071

Employee Training and Career Development

	Category		Unit	2022	2023	2024
	Employees		Persons	721	642	679
Training	Completion rate		%	114.1	101.1	99.4
status	Total completed	training hours	Hour	4,947	6,081	7,988
	Average training	completed	Hours/persons	8	10	12
Total training	Gender	Male	Hour	4,172	5,437	7,002
	Gender	Female	Hour	775	644	986
hours	By contract type	Permanent	Hour	4,803	5,437	7,687
		Contract	Hour	144	218	301
completion status Total training	Gender	Male	Hours/persons	8.2	10.5	12.7
	Gerider	Female	Hours/persons	12	10	15
	By contract type	Permanent	Hours/persons	8	9	12
	by contract type	Contract	Hours/persons	2	4	5
Average training	costs per person		KRW won	541,478	864,120	962,715
Percentage	Gender	Male	%	100	100	100
Percentage of employees that received	Gerider	Female	%	100	100	100
	By position ¹⁾	Manager	%	100	100	100
evaluations	ву розноп	Staff	%	100	100	100

Supply Chain Assessment

	Catego	ory	Unit	2022	2023	2024
New supplier	No. of new sup screening	opliers that undergo ESG	Count	0	0	0
screening proportion	New suppliers		Count	176	106	87
proportion	New supplier E	SG screening ratio	%	0	0	0
	No. of supplier chain ESG asse	s that undergo supply ssment	Count	0	0	13
	Percentage of purchases made from suppliers who have completed supply chain ESG assessments		%	0	0	44.1
	Low rated sup	pliers	Count	0	0	0
		No. of suppliers in compliance with improvement measures	Count	0	0	0
Supply chain ESG assessment		Rate of suppliers tin compliance with improvement measures	%	0	0	0
	Improvement measures	No. of supplies whose contracts were terminated due to significant negative impact	Count	0	0	0
		Rate of suppliers whose contracts were terminated due to significant negative impact	%	0	0	0

Product Customer Safety

Category	Unit	2022	2023	2024
Received safety-related reports by customers	Cases	0 0		0
Resolved safety-related reports by customers Cases		0	0	0
No. of products assessed for customer safety	Count	165	172	177

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Health & Safety

Category		Unit	2022	2023	2024
Health and safety management system applicability	No. of employees	Persons	591	462	504
	Employee rate	%	93.1	72.4	73.5
Health & safety training	Training completion rate	%	92.1	92.9	92.6
Employee health check-	Employees who got check-up	Persons	568	546	628
ups	Rate of employees who got check-ups	%	89.4	85.6	91.5

Work-related III Health

	Category	Unit	2022	2023	2024
Employees	No. of deaths caused by occupational disease	Case	0		0
	No. of occupational diseases	Case	0	0	0
Supplier	No. of deaths caused by occupational disease	Case	0	0	0
	No. of occupational diseases	Case	0	0	0

Labor-Management Relations

Category	Unit	2022	2023	2024
No. of members subject to labor union	Persons	245	247	258
No. of members registered to labor union	Persons	245	247	258
Employee labor union registration rate	%	100	100	100
Labor-management council meetings held	Count	13	8	8

Work-related Injuries

Cate	egory	Unit	2022	2023	2024
Ossumational insidents	Employee	Case	2	1	2
Occupational incident ra Lost-time incident (LTI) Lost-time incident	Supplier	Case	0	3	0
Occupational incidents Occupational incident rate Lost-time incident (LTI) Lost-time incident rate (LTIR) ¹⁾ Recordable incident (RI) Total recordable incident rate (TRIR) ¹⁾ Work-related severe injury Work-related severe	Employee	%	0.31	0.16	0.29
	Supplier	%	0	2.54	0
Last time incident (LTI)	Employee	Case	3	1	3
Lost-time incident (LTI)	Supplier	Case	0	3	0
Lost-time incident	Employee	-	1.82	0.74	2.06
Recordable incident (RI) Total recordable	Supplier	_	0	12.04	0
Recordable incident (RI)	Employee	Case	5	2	3
	Supplier	Case	1	3	0
Total recordable	Employee	_	3.03	1.48	2.06
ncident rate (TRIR) ¹⁾	Supplier	-	3.95	12.04	0
Work-related severe	Employee	Case	0	0	0
injury	Supplier	Case	0	0	0
Work-related severe	Employee	%	0	0	0
Occupational incident ran Lost-time incident (LTI) Lost-time incident rate (LTIR) ¹⁾ Recordable incident (RI) Total recordable incident rate (TRIR) ¹⁾ Work-related severe injury	Supplier	%	0	0	0
Fotolity (FAT)	Employee	Case	0	0	0
ratality (rAT)	Supplier	Case	0	0	0
Estality rate	Employee	%	0	0	0
ratality rate	Supplier	%	0	0	0
Total marking barre	Employee	Hour	1,651,497	1,355,153	1,455,517
Total working nours	Supplier	Hour	253,440	249,216	264,000
	Supplier	Hour	253,440	249,216	264,00

¹⁾ One million person-hours basis

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Governance

Hanwha Advanced Materials was established in December 2022 through a physical division from Hanwha Solutions, so the 2022 data was consolidated and disclosed under Hanwha Solutions.

Board of Directors

	Categ	ory	Unit	2022	2023	2024
· · ·		Total	Person		5	5
	Cula cata manu	Executive directors	Person		3	3
	Subcategory	Outside directors	Person		0	0
Composition		Non-executive directors	Person		2	2
	Gender	Male	Person		5	5
	Gender	Female	Person		0	0
	No. of meetir	ngs	Meeting		5	7
Meetings	No. of	Resolved	Case		23	31
	agenda items	Reported	Case		0	2

Compensation

Category	Unit	2022	2023	2024
CEO compensation	KRW million	565	859	539
Avg. employee compensation (excl. registered executives)	KRW million	80	83	85

Information Security and Protection

	Category	Unit	2022	2023	2024
Information security status	Employee information security training completion rate	%		100	100
	Site information security due diligence rate	%		100	100
	No. information security assessments done	count		1	1
Information	No. of incidents	Case		0	0
security incidents	Fine amount	KRW million		0	0
Privacy	No. of external complaints	Case		0	0
violations	No. of regulatory authority complaints	Case		0	0
Personal infor	mation leak/theft/loss	Case		0	0

Ethics and Fair Trade

	Category	Unit	2022	2023	2024
Ethics training	Ethics training completion rate	%		100	100
	No. of sites assessed	Count		0	0
Anti-bribery risk assessment	Total no. of sites	Count		2	2
assessime.re	Ratio of sites assessed	%		0	0
	No. of employees completed	Persons		0	50
Fair trade training	No. employee trainings	Count		0	2
raii trade trairiirig	No. of supplier trainings	Count		0	0
	No. training hours	Hour		0	50
	No. of executives who completed training	Persons		0	0
Anti-bribery	Ratio of executives who completed training	%		0	0
training	No. employees who completed training	Persons		0	0
	Rati oof employees who completed training	%		0	0
Integrity agreement/ supplier code of conduct pledge	No. employees signed	Persons		0	317
	No. of suppliers signed	Count		0	0
	Ration of suppliers signed	%		0	0
	Corruption cases	Case		0	0
	Disciplinary actions taken	Count		0	0
Corruption cases	Dismissals taken	Count		0	0
	Supplier contract terminations	Count		0	0
	Corruption-related legal actions	Count		0	0
Laws/regulations violations	Total	Count		0	0
	Monetary sanctions	Count		0	0
	Non–monetary sanctions	Count		0	0

Approach

Environmental

GRI Standards Index

Hanwha Advanced Materials reported its ESG performance for the period from January 1, 2024 to December 31, 2024, in accordance with the Global Reporting Initiative (GRI) Standards 2021, an international sustainability reporting standard. GRI 1 used: GRI 1: Foundation 2021 Applicable GRI Sector Standards: N/A

Category		Disclosure	Page	Remarks
GRI 2 General Disclosu	ıres			
	2-1	Organizational details	6–7	-
	2-2	Entities included in the organization's sustainability reporting	2	-
The organization and its reporting	2–3	Reporting period, frequency, and contact point	2	-
practices	2-4	Restatement of information	-	
practices	2–5	External assurance	80–81	First pub- lication for FY24
Activities and	2–6	Activities, value chain and other business relation- ships	6–7	=
workers	2-7	Employees	71	_
	2-8	Workers who are not employees	71	_
	2-9	Governance structure and composition	12, 57	_
	2-10	Nomination and selection of the highest governance body	12, 57	-
	2-11	Chair of the highest governance body	12, 57	_
	2–12	Role of the highest governance body in overseeing the management of impacts	12, 57	-
	2-13	Delegation of responsibility for managing impacts	12, 57	-
	2-14	Role of highest governance body in sustainability reporting	12	-
Governance	2–15	Conflicts of interest	-	No conflicts of interest
	2–16	Communication of critical concerns	16, 57	_
	2–17	Collective knowledge of the highest governance body	12	-
	2–18	Evaluation of the performance of the highest governance body	-	Evaluation not per– formed
	2-19	Remuneration policies	_	Confidential
	2-20	Process to determine remuneration	-	Confidential
	2-21	Annual total compensation ratio	-	Confidential
	2-22	Statement on sustainable development strategy	5	-
	2-23	Policy commitments	18, 29, 35, 41, 46, 47, 50, 52, 53, 58, 62	-
	2–24	Embedding policy commitments	18, 29, 35, 41, 46, 47, 50, 52, 53, 58, 62	-
Strategy, Policies and Practices	2–25	Processes to remediate negative impacts	15, 23, 37, 49, 52, 54, 61	-
	2-26	Mechanisms for seeking advice and raising concerns	16, 49, 52, 54, 61	-
	2–27	Compliance with laws and regulations	19, 23, 25, 26, 27,35, 41, 44, 46, 47, 58	-
	2-28	Membership associations	79	_

Category		Disclosure	Page	Remarks	
GRI 2 General Disclo	GRI 2 General Disclosures				
Stakeholder	2-29	Approach to stakeholder engagement	12	-	
Engagement	2-30	Collective bargaining agreement	12, 46	-	
GRI 3 Material Topic	S				
GRI 3: Material	3–1	Process to determine material topics	13	-	
Topics 2021	3–2	List of material topics	14–15	-	
Climate Change Res	ponse				
GRI 3: Material Top- ics 2021	3–1	Management of material topics	20–22	-	
CDI 202: F	302-1	Energy consumption with the organization	68	-	
GRI 302: Energy 2016	302-3	Energy intensity	68	-	
2010	302-4	Reduction of energy consumption	22	-	
	305-1	Direct (Scope 1) GHG emissions	68	-	
CDI 205. E	305-2	Energy indirect (Scope 2) GHG emissions	68	_	
GRI 305: Emissions 2016	305-3	Other indirect (Scope 3) GHG emissions	68	-	
2010	305-4	GHG emissions intensity	68	_	
	305-5	Reduction of GHG emissions	21, 68	-	
Health & Safety					
GRI 3: Material Top- ics 2021	3–1	Management of material topics	35–40	_	
	403-1	Occupational health and safety management system	36–37	_	
	403-2	Hazard identification, risk assessment, and incident investigation	36	_	
	403-3	Occupational health services	37–38	-	
	403-4	Worker participation, consultation, and communication on occupational health and safety	37–39	_	
GRI 403: Occupa-	403-5	Worker training on occupational health and safety	37, 40	_	
Safety 2018	403-6	Promotion of worker health	38	-	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	35–40	-	
	403-8	Workers covered by an occupational health and safety management system	35	_	
	403-9	Work-related injuries	74	-	
	403-10	Work-related ill health	74	_	

GRI Standards Index

Category		Disclosure	Page	Remarks
Supply Chain Manag	jement			
GRI 3: Material Topics 2021	3–3	Management of material topics	15, 50–52	-
GRI 308: Supplier Environmental	308-1	New suppliers screened using environmental criteria	51, 73	_
Assessment 2016	308-2	Negative environmental impacts in the supply chain and actions taken	67	_
GRI 414: Supplier Socia Assessment	414-1	New suppliers screened using social impact assessment criteria	51, 73	_
2016	414–2	Significant negative social impacts in the supply chain and measures implemented	51	_
Product Quality & Li	ability			
GRI 3: Material Topics 2021	3–3	Management of material topics	13, 33, 53–54	
Product R&D				
GRI 3: Material Topics 2021	3–3	Management of material topics	15, 32–33	
Non-material topics				
GRI 202: Market Presence 2016	202-1	Ratio of new employee wages by gender compared to local legal minimum wage at workplace	75	-
GRI 203: Indirect	203-1	Infrastructure investment and service provision	55	-
Economic Impacts 2016	203-2	Significant indirect economic impact	32, 33	_
GRI 204: Procurement Practices 2016	204–1	Proportion of spending on local suppliers	75	
CDI 20E	205-1	Workplaces assessed for corruption-related risks	60	-
GRI 205: Anticorruption 2016	205–2	Communication and training on anti-corruption policies and procedures	59, 61	_
2010	205-3	Confirmed corruption incidents and actions taken	59–61	
GRI 206: Anticompetitive Behavior 2016	206–1	Legal actions regarding anticompetitive, antitrust, and monopoly practices	60	-
GRI 301: Materials	301-1	Materials used by weight or volume	32	
2016	301–3	Reclaimed products and their packaging materials	32	
CDI 2021 W. I	303-1	Interactions with water as a shared resource	23-24	
	303-2	Management of water discharge-related impacts	23	
GRI 303: Water and Effluents 2018	303-3	Water withdrawal	69	
LINGEIRS 2010	303-4	Water discharge	23, 69	
	303-5	Water consumption	69	

Category		Disclosure	Page	Remarks
Non-material topics				
	304–1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	30–31	-
GRI 304: Biodiversity 2016	304-2	Significant impacts of activities, products and services on biodiversity	30–31	-
	304-3	Habitats protected or restored	31	
	304–4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	31, 69	
GRI 306: Waste	306-1	Waste generation and significant waste-related impacts	26, 32	_
2020	306–2		26	_
2020	306-3	Generated waste	26, 70	
	306-4	Unprocessed waste	70	_
GRI 401:		New hires and turnover	72	_
Employment 2016	401-2	Benefits provided only to full-time employees	72	
		Parental leave	72	_
	404-1	Average training hours per employee	73	-
GRI 404: Training and	404-2	Employee capacity building and transition support programs	43, 73	_
Education 2016	404-3	Percentage of employees receiving regular performance evaluation and career development review	43	-
GRI 405: Diversity and Equal Opportunity 2016	405–1	Composition of governance bodies and employees by category (gender, age, minority groups, other diversity indicators)	57	-
	405-2	Ratio of basic salary and remuneration of female to male employees (by employee category, major business sites)	73	-
GRI 406: Non- discrimination 2016	406-1	Number of discrimination incidents and corrective actions taken	-	No discrimi- nation incidents
GRI 416: Customer Health and Safety 2016	416-1	Implementation rate of health and safety impact assessments for major products and services	54	-
	416–2	Number of violations of health and safety laws and voluntary regulations	54	
GRI 417: Marketing and Labeling 2016	417–1	Requirements for information and labeling procedures	54	_
	417-2	Number of violations of laws and voluntary regulations related to information and labeling (disposition results)	54	
	417-3	Customer satisfaction survey results	54	
GRI 418: Customer Privacy 2016	418-1	Number of complaints regarding customer privacy violations and loss of customer information	62–65	-

UN SDGs

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UN SDGs	2024 Key Activities	Page
1 번곤등 감소약 사회인전만 강화	• Not applicable	-
2 식정안보작 지수가능한 농업	Bright World fundraising campaign	55
3 전쟁하고 명목한 살 ── //◆	 Employee health management Welfare programs	38, 44
4 모두를 위한 양절의 교육	 Employee training programs Employee skill development and career planning	43
2 аяе жа	 Establishment of human rights policies and conducting human rights education Activities to promote gender diversity 	47–48
6 건강하고 인정한 물건의	Wastewater quality assessment and water conservation activitiesWater recycling and reuse activities	23
7 에너지의 친환경적 생산과 소비	 Use of renewable energy Reduction of carbon emissions from transportation	21–22
8 중요일자리 확대와 경제성장	Talent acquisition investments	42–43

UN SDGs	2024 Key Activities	Page
9 산업혁신과 사례기반시설 확증	 Lightweight composite materials, solar energy materials development project Sustainable product R&D 	8- 9, 32
10 经营务等单	Establishment of fair recruitment processesHuman rights management policies and activities	42, 47–48
11 지속기능한 도시와 주거지	Community contribution activitiesProtection of indigenous rights	55
12 지속가능한 성간과소비	Life Cycle Assessment (LCA) implementation	32–33
13 기후변화대용	 Policy development for GHG emission reduction and implementation of climate change response activities Environmental impact management activities and goal setting (water resources, waste, pollutants, biodiversity) 	20–29
15 % % % % % % % % % % % % % % % % % % %	Biodiversity impact assessment and conservation activities	29–31
16 ²²⁻³⁹⁻⁸⁹	Ethics management activities and operation of reporting channels	58–61
17 제구촌 형력하여	 Establishment of sustainable supply chain management system Establishment of ethical management system and fair trade management 	50, 52, 60

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Association/Membership Status

Association Name	Purpose of Membership
Korea Industrial Safety Association	Industrial safety information exchange, etc.
Korea Hope Safety Institute	Registration and training for fire safety managers and hazardous material safety managers, etc.
Chungbuk Environmental Engineers Association	Information exchange for environmental engineers, etc.
Sejong Health and Safety Council	Sharing safety and health information for companies in Sejong, etc.
Daejeon and Sejong PSM Council	Sharing PSM-related information, etc.
Daejeon, Sejong, and Chungnam Environmental Engineers Association	Sharing information for environmental engineers, etc.
Sejong City Environmental Engineers Association	Environmental information and education support
Bugang-myeon Nature Conservation Council	Regional-linked nature conservation activities
Seoul Chamber of Commerce and Industry	Member company exchange and international business support

Association Name	Purpose of Membership
AKI Cooperation Association	Adient Korea Cooperation Association
Korean Society for Composite Materials	Networking for composite material experts and understanding of technology trends
Korea Carbon Nano Association	Networking for carbon composite material experts in the automotive industry and understanding of technology trends
Sejong Chamber of Commerce and Industry	Exchanging key information and regional development in Sejong City (as stipulated in the Chamber of Commerce and Industry Act, Article 10, Paragraph 3, Article 14, Paragraph 2, etc.)
Hyundai–Kia Cooperation Association	Hyundai–Kia business environment and partner exchange
GM Korea Association	GM Korea business environment and partner exchange
NIC (Non–Metallic Innovation Center)	Oil & Gas market trend analysis
Korea Electrical Engineers Association	Electrical safety manager association fee
Korea Mechanical Equipment Construction Association	Mechanical equipment maintenance manager career management fee

GHG Verification Statement



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Independent Assurance Statement

Independent Assurance Statement

To readers of 2024 Hanwha Advanced Materials Sustainability Report

Introduction

Korea Management Registrar (KMR) was engaged to conduct an independent assurance of 2024 Hanwha Advanced Materials Sustainability Report for the year ending December 31, 2024. The preparation, information and internal control of the report are the sole responsibility of Hanwha Advanced Materials' the management. KMR's responsibility is to comply with the agreed engagement and express an opinion to Hanwha Advanced Materials' management.

Subject Matter

The reporting boundaries included the performance and activities of sustainability-related organizations as described in Hanwha Advanced Materials' report:

2024 Hanwha Advanced Materials Sustainability Report

Reference Standard

GRI Standards 2021: 2023 (GRI)

Assurance Criteria

KMR applied the quality management system in accordance with ISO 17029 and KMR EDV 01, and carried out the verification in accordance with the assurance criteria of AA1000AS v3 and KMR's proprietary SRV1000. Under AA1000AS v3, we assessed the adherence to the four principles presented in AA1000AP:2018—Inclusivity, Materiality, Responsiveness, and Impact—and evaluated the reliability and quality of the data and information using. Under SRV1000, we conducted a multidimensional review aimed at zero data errors, applying expert judgment to determine the materiality criteria.

- ISO 17029: 2019, ISO 14065: 2020, AA1000AS v3: 2020 (AccountAbility), AA1000AP: 2018 (AccountAbility), SRV1000: 2022 (KMR), KMR EDV 01: 2024 (KMR)
- Levels of assurance/materiality: AA1000AS v3 Type 2/moderate, limited/ not set

Scope of Assurance

The information subject to verification in the sustainability report is as follows.

- GRI Standards 2021 reporting principles
- Universal Standards
- Topic Specific Standards
- Energy: GRI 302-1, 3, 4
- Emissions: GRI 305-1~5
- Supplier Environmental Assessment: GRI 308-1~2
- Occupational Health and Safety: GRI 403-1~10
- Supplier Social Assessment: GRI 414-1~2

KMR's Approach

Our Assurance Team undertook the following activities for the agreed scope of assurance using the standard

- · Conducting inquiries to understand the data management and control environment, processes, and information systems (the effectiveness of controls was not tested);
- · Evaluating the appropriateness and consistency of the methodology for estimation (note that the underlying data was not tested and KMR has not made any estimates);
- · Visiting the headquarters, determining visit sites based on the site's contribution to sustainability and the possibility of unexpected changes since the previous period and sampling data, and carrying out due diligence on a limited number of source records at the sites visited;
- Interviewing people in charge of preparing the report;
- · Considering whether the presentation and disclosures of sustainability information are accurate and clearly
- · Identifying errors through comparison and check against underlying information, recalculation, analyses, and backtracking; and
- Evaluating the reliability and balance of information based on independent external sources, public databases, and press releases.

Introduction

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Independent Assurance Statement

Independent Assurance Statement

To readers of 2024 Hanwha Advanced Materials Sustainability Report

Limitations and Recommendations

The absence of generally accepted reporting frameworks or well-established practices on which to draw to evaluate and measure non-financial information allows for different measures and measuring techniques, which can affect comparability between entities. Therefore, our assurance team relied on professional judgment. In a limited assurance engagement, the scope of the risk assessment procedures and the subsequent procedures performed in response to the assessed risks are limited than in a reasonable assurance engagement. Our assurance team conducted our work to a limited extent through inquiries, analysis, and limited sampling based on the assumption that the data and information provided by Hanwha Advanced Materials are complete and sufficient. To overcome these limitations, we confirmed the quality and reliability of the information by referring to independent external sources and public databases, such as DART and the National GHGs Management System (NGMS).

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with Hanwha Advanced Materials on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and revision have been reflected. We found that the report was prepared in accordance with the criteria presented by Hanwha Advanced Materials, and nothing comes to our attention to suggest that the evidence obtained regarding its content is insufficient to provide a basis for our opinion. Our opinion on the principles is as follows:

Inclusivity

Hanwha Advanced Materials has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality

Hanwha Advanced Materials has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness

Hanwha Advanced Materials prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of Hanwha Advanced Materials' actions.

Impact

Hanwha Advanced Materials identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of sustainability performance data, including the number of employees, employment rates for persons with disabilities and veterans, new hires, and turnover. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

KMR's Competence, Independence, and Quality Control

Korea Management Registrar (KMR) is a verification body for the Republic of Korea Emissions Trading Scheme (K-ETS), accredited to ISO/IEC 17029:2019 (Conformity Assessment – General principles and requirements for validation and verification bodies). ISO 14067, the additional accreditation criteria ISO 14065, and ISO/IEC 17021:2015 (Requirements for bodies providing audit and certification of management systems). Additionally, KMR maintains a comprehensive quality control system that includes documented policies and procedures of the KMR EDV 01:2024 (ESG Disclosure Assurance System) based on ISO/IEC 17029 requirements and compliant with IAASB ISQM1:2022 (International Standard on Quality Management 1 by the International Auditing and Assurance Standards Board). Furthermore, KMR adheres to the ethical requirements of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior in accordance with the IESBA Code 2023 (International Code of Ethics for Professional Accountants). Our assurance team consists of sustainability experts. Other than providing an independent assurance, KMR has no other contract with Hanwha Advanced Materials and did not provide any services to Hanwha Advanced Materials that could compromise the independence of our work.

Limitations of Use

This assurance statement is made solely for the management of Hanwha Advanced Materials for the purpose of enhancing an understanding of the organization's sustainability performance and activities. We assume no liability or responsibility for its use by third parties other than the management of Hanwha Advanced Materials. As this assurance statement may be subject to revision after the assurance date below, we recommend verifying whether this is the latest version.

1204, Acehightechcity 1-dong, 775 Kyunginro, Yeongdeungpo-gu, Seoul, 07299, Korea

Homepage: www.ikmr.co.kr

September 8, 2025 E. J Hwang









