HS HYOSUNG ADVANCED MATERIALS

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ECF ELEMENTAL CHLORINE FREE

This eco-friendly paper is made from pulp bleached by chlorinated compounds like ClO_2 rather than elemental chlorine, so less dioxin is generated to reduce environmental impact.

30% RECYCLED MATERIAL

This eco-friendly paper contains 30% regenerated pulp made from recycled paper.

Revised date : March, 1, 2026

HS HYOSUNG ADVANCED MATERIALS

TANSOME® CARBON FIBER

Carbon Fiber

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TANSOME® CARBON FIBER

HS HYOSUNG ADVANCED MATERIALS
Carbon Fiber



Creating Value Together

HS HYOSUNG's Leading Star, Value Tree

HS HYOSUNG's symbol, 'MASTERIA,' is an inspired fusion of 'MATERIA,' Latin for origin and tree (or forest), and 'ASTER,' the goddess of the stars. It further resonates with the multifaceted meanings of 'MASTER' and 'MATERIAL.' This emblem draws its inspiration from 'Hyosung' - the 'Leading Star' that guides us at the break of dawn - and the 'Value Tree,' which symbolizes a diverse array of values nurtured through tenacious vitality and enduring growth. MASTERIA reflects our vision to steer the world and our lives towards a more valuable and meaningful direction.

Discover New Safety, New Comfort

Global Market No.1

PET Tire cord
Seatbelt Yarns
Airbag Fabrics

The future of industry growing based on advanced materials

Based on its excellent technology that enabled Korea's first production of Nylon tire cords (a key material for tire reinforcements) in 1968, HS HYOSUNG ADVANCED MATERIALS has produced high-intensity industrial yarns, textiles and steel wire materials for various industries such as automobile, civil engineering and agriculture.

HS HYOSUNG ADVANCED MATERIALS develops the best materials for essential industries encompassing automobile, defense, construction and logistics and even covering sports and leisure to enhance the quality of our lives. Our materials help create a safe and comfortable life with the high performance and quality.
On top of that, we aim to protect the environment and pursue a clean future by developing eco-friendly materials and implementing sustainable manufacturing processes.

HS HYOSUNG ADVANCED MATERIALS would like to go one step further by promising a coexistence of stakeholders, local and global communities and a value-driven development for a safe and comfortable life.
This is the way we seek for to create values beyond customer expectations.

Tire reinforcement material used in more than 50% of passenger car tires worldwide



We maintain the No.1 position in terms of global market share with the integrated production and supply systems for tire reinforcements at the largest scale across the world.

The World's First PET Automotive Carpet



Applauded for its best quality in Korea of commercial and automotive carpets, the company has succeeded to mass-produce the world's first polyester automotive carpet.

Super Fiber ALKEX®



The Aramid yarn, developed with the company's own technology and commercialized successfully, is actively utilized for industrial uses including ballistic and automobiles.

Sustainable Technical Yarns with Versatile Uses



Utilizing the advanced technology with which the first airbag fabric in Korea was developed, the company produces and exports sustainable Technical yarns for versatile uses.

High-Performance New Material - TANSOME®



TANSOME® is a material used for automobiles increasingly becoming lighter. Recognized for its excellent strength and stability, it is now widely utilized in the eco-friendly energy industry.

The World's Largest Airbag Fabric Maker - GST



GST is the world's largest airbag producer with the biggest global market share and is also selected by globally renowned automakers such as Autoliv, ZF and Toyota.

Products Details

H2550
Standard Modulus
5,500 MPa / 250 GPa

Standard Modulus Fiber

H2550, the carbon fiber with the highest strength-to-modulus ratio among commercialized fibers, ideal for high-pressure vessels, cable cores, and other applications.





Production sites : KR, CN, VN

H3055 / H3060
Intermediate Modulus
5,800 MPa / 290 GPa
6,100 MPa / 290 GPa

Intermediate Modulus Fiber

H3055, H3060 are intermediate modulus fibers utilized in applications that require superior properties, such as aerospace & defense, Advanced Air Mobility (AAM), and Oil & Gas industries.





Production site : KR

H3065
High Strength Intermediate Modulus
6,400 MPa / 290 GPa

High Strength Intermediate Modulus Fiber

H3065 is the intermediate modulus fiber with a tensile strength of 6,400 MPa, used in applications such as aerospace & defense and high-end bicycles.





Production site : KR

H2561

Enhanced Strength 28K Fiber

6,100 MPa / 250 GPa

Next-Generation 28K fiber for Hydrogen Pressure Vessels

H2561 is used for manufacturing Type 4 high-pressure hydrogen storage tanks, offering a tensile strength that is improved by 10.9% compared to H2550.



Production sites : KR, CN, VN

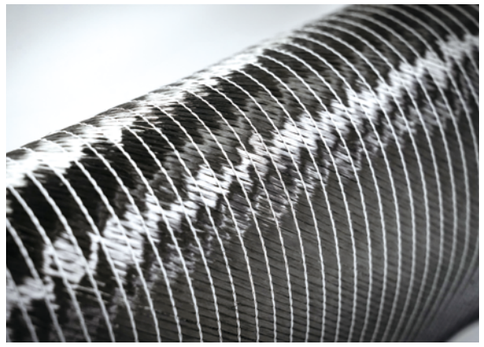
S2450

Balanced Performance Carbon Fiber

5,000 MPa / 240 GPa

Balanced Performance for Versatile Applications

Offering balanced mechanical properties, S2450 is designed for versatile applications including weaving, pultrusion, and prepreg manufacturing.



Production sites : KR, CN, VN

S2650

Enhanced Modulus Carbon Fiber

5,400 MPa / 260 GPa

Optimized Carbon Fiber with Enhanced Modulus

Designed for offshore wind blade spar-cap applications, S2650-48K offers exceptional stiffness to ensure reliable performance in the growing scale of offshore wind blades.



Production sites : KR, CN

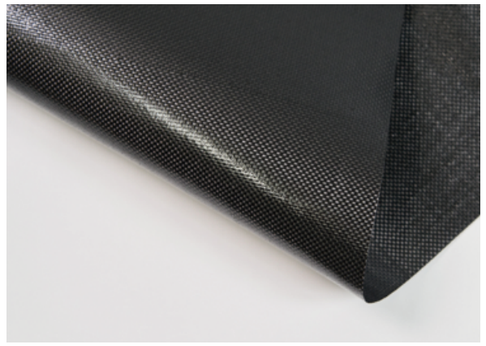
H2445-3K

High Performance 3K Fiber

4,700 MPa / 240 GPa

High Performance 3K Fiber

Setting a new standard in the 3K category, H2445-3K delivers enhanced tensile strength and modulus, making it the ideal choice for high-spec industrial products and even aerospace applications.



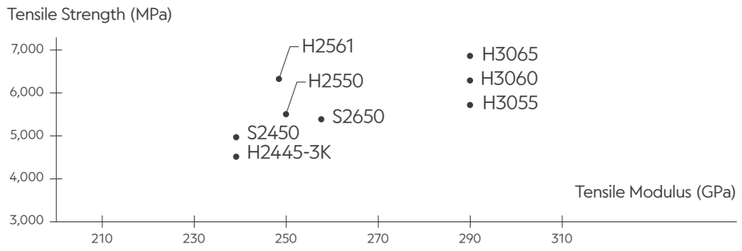
Production sites : KR, CN

Physical Properties

Key Characteristics

HS HYOSUNG ADVANCED MATERIALS began its journey in 1966 with the nylon business, carrying a rich heritage in synthetic fiber production technology. Leveraging this expertise, we manufacture TANSOME® carbon fiber using our self-developed precursors.

TANSOME® Portfolio



Tow Properties

Products	Filaments	Tensile Strength		Tensile Modulus		Elongation	Density	Diameter	Yield	Sizing Type
Units		MPa	ksi	GPa	Msi	%	g/㎤	㎛	g/km	
H2445	3K	4,700	682	240	35	2.0	1.80	7.0	198	A G
H2550	6K	5,500	798	250	36	2.2	1.80	7.0	400	A G Un
	12K	5,500	798	250	36	2.2	1.80	7.0	800	
	24K	5,500	798	250	36	2.2	1.80	7.0	1,650	
H2561	28K	6,100	885	250	36	2.4	1.8	6.5	1,750	A G
H3055	12K	5,800	841	290	42	2.0	1.78	6.5	725	C Un
H3060	24K	6,100	885	290	42	2.1	1.78	5.0	1,030	
H3065	12K	6,400	928	290	42	2.2	1.78	5.0	505	C G
S2450	24K	5,000	725	240	35	2.1	1.80	7.0	1,650	A G
	48K	5,000	725	240	35	2.1	1.80	7.0	3,320	
S2650	48K	5,400	783	260	38	2.1	1.80	7.0	3,265	G

* The Physical properties listed in this brochure represent average values for the LOT.

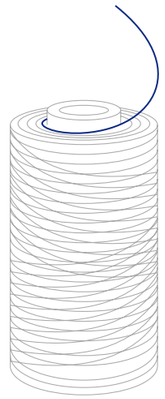
Composites Properties

Composites Properties	Units	H2550			H3055	H3060	H3065	Test Method
Number of Filaments		6K	12K	24K	12K	24K	12K	
0° Tensile Strength	MPa I ksi	2,900 I 420	2,900 I 420	2,900 I 420	3,100 I 450	3,300 I 479	3,400 I 494	ASTM D3039
0° Tensile Modulus	GPa I Msi	140 I 20.3	140 I 20.3	140 I 20.3	175 I 25.4	175 I 25.4	175 I 25.4	ASTM D3039
0° Tensile Strain	%	1.8	1.8	1.8	1.8	1.8	1.8	ASTM D3039
0° Compressive Strength	MPa I ksi	1,450 I 210	1,450 I 210	1,450 I 210	1,550 I 225	1,600 I 232	1,600 I 232	ASTM D3410
0° Flexural Strength	MPa I ksi	1,700 I 246	1,700 I 246	1,700 I 246	1,900 I 275	1,950 I 283	1,950 I 283	ASTM D790
0° Flexural Modulus	GPa I Msi	125 I 18.1	125 I 18.1	125 I 18.1	145 I 21.0	145 I 21.0	145 I 21.0	ASTM D790
ILSS Strength	MPa I ksi	87 I 12.6	87 I 12.6	87 I 12.6	88 I 12.8	90 I 13.0	88 I 12.8	ASTM D2344

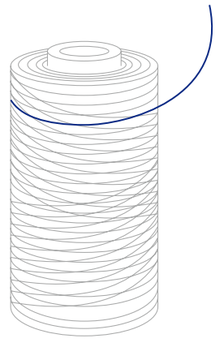
* The above properties do not constitute any warranty or guarantees. These values are for material selection purposes only.

Standard Packing

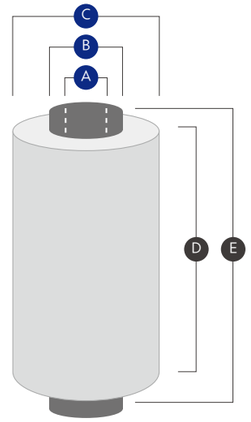
Center Pull



Outside Pull



Bobbin Size



Fiber Type	Filaments	Spool Net Weight (kg)	Spool Per Case (ea)	Case Net Weight (kg)	Pallet Net Weight (kg)	Bobbin Size				
						A	B	C	D	E
H2550	6,000	1.0	8	8	288	76.8	84	110	250	280
		2.0	8	16	576	76.8	84	127	251	280
	12,000	2.0	8	16	576	76.8	84	130	252	280
		4.0	6	24	864	76.8	84	161	253	280
		6.0	4	24	864	76.8	84	186	254	280
	24,000	4.0	6	24	864	76.8	84	160	255	280
		6.0	4	24	864	76.8	84	188	255	280
		8.0*	96	768	768	76.8	84	212	255	280
H3055	12,000	2.0	8	16	576	76.8	84	134	253	280
		4.0	6	24	864	76.8	84	162	254	280

* Center Pull can be applicable / Gaylord Packing

Sustainability

We have been recognized by global rating agencies for our systematic management and transparent disclosure across the areas of Environmental, Social, and Governance. Going forward, we will continue to strengthen responsible ESG management through transparent communication and accountable practices.

EcoVadis

PLATINUM Top 1% ecovadis Sustainability Rating OCT 2025

Platinum 2024-2025
Two years in a row
Top 1% among ~150,000 companies

- Globally validated ESG credibility: EcoVadis global top-tier performance

Recognition Link

CDP

(Carbon Disclosure Project)
2025

CDP Discloser 2025

Climate Change **Leadership A-**
Water Security **Leadership A-**

- Demonstrating leadership in climate action and water stewardship through strategic execution.

MSCI

(Morgan Stanley Country Index)

MSCI

BBB 2024 - 2025

- Investor-oriented assessment of ESG risk and governance performance

Korea ESG Standards Institute (KCGS)

한국ESG기준원
Korea Institute of Corporate Governance and Sustainability

Overall A 2021-2025
5th years in a row

- Sustainability management performance assessed under Korea's leading ESG evaluation framework.

S&P Global CSA

(Corporate Sustainability Assessment)

S&P Global
Hs Hyosung Advanced Materials
Chemicals
Sustainability Yearbook Member

Sustainability Yearbook Member
2024~2025

- Sustainability management competitiveness validated by global benchmarks

Sustainalytics

2024 - 2025

SUSTAINALYTICS
a Morningstar company

Risk Rating **Low**
Exposure **Low**
Management **Strong**

- Credibility assessment from an ESG risk perspective, informing the investment decisions of financial institutions and investors

Ready to meet customer ESG requirements
Systematically managing assessments, due diligence, and disclosure requests

Globally validated ESG
Building trust through top-tier performance across major benchmarks

Reduce risks and create opportunities
Turning climate, water, ethics, and governance into execution

Notes: Ratings and years are based on each evaluating organization's latest publicly disclosed criteria.

Detailed information regarding our ESG initiatives is available at

TANSOME CARBON FIBER

Technical Data Sheet

H2550-6K | H2550-12K | H2550-24K | H3055-12K | H3060-24K

H3065-12K | S2450-24K | S2450-48K | S2650-48K | H2445-3K

H2561-28K

HS HYOSUNG

The information provided herein is based on tests conducted under controlled laboratory conditions and represents typical or average values. These values do not constitute a specification, guarantee, or warranty. Actual results may vary depending on processing conditions or when used with other materials.

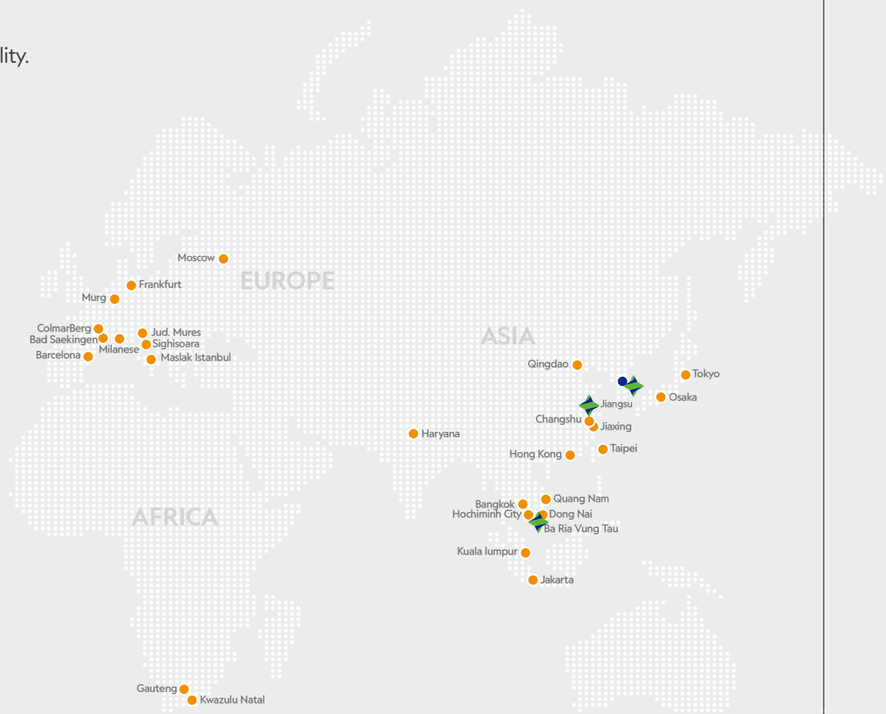
Global Networks

HS HYOSUNG builds a systematic global network,
aiming for value management through
unrivaled technology and excellent quality.

Global Locations

37 locations in 19 countries

Production Affiliate **17** | Trade Affiliate **13**
Logistics Affiliate **1** | Branch and Office **6**



Korean Locations

HQ 1 Plant 4 Institute 1

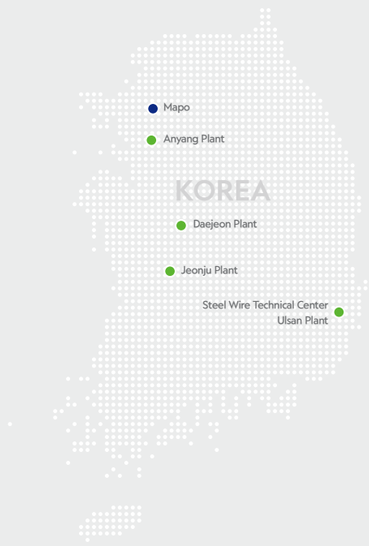
SEOUL
· Mapo

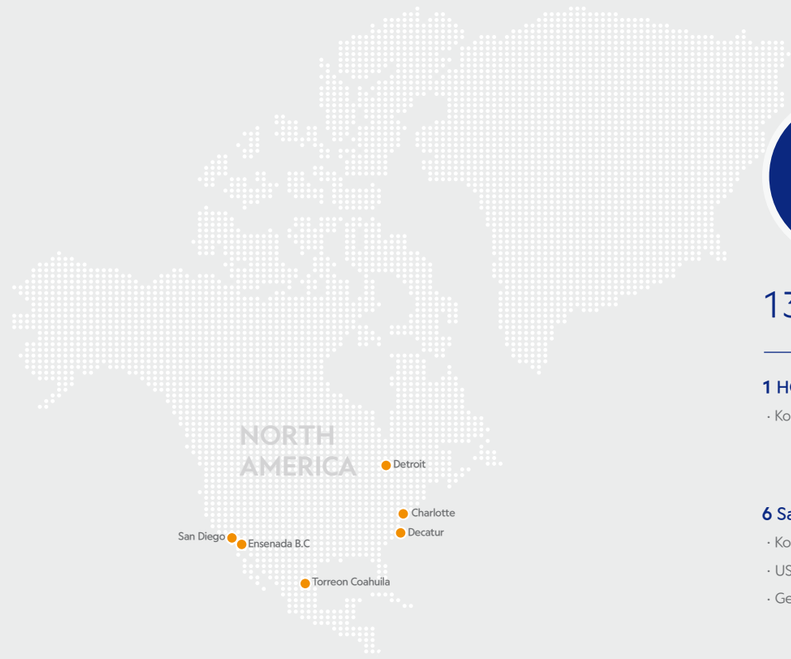
ANYANG
· Anyang plant
Roll carpet, Automotive carpet, Nylon BCF,
PET (Polyester) BCF

DAEJEON
· Daejeon plant
Tile carpet, PP BCF

ULSAN
· Steel Wire Technical Center
· Ulsan plant
Aramid, PET (Polyester) BCF

JEONJU
· Jeonju plant
Carbon fiber





CARBON FIBER NETWORKS

Carbon fiber production site

13 locations in 9 countries

1 HQ
· Korea

3 Plants
· Korea
· China
· Vietnam

6 Sales offices
· Korea · Italy
· USA · Turkiye
· Germany · India

3 Warehouses
· United States
· Luxembourg
· India

Asia

17 locations in 10 countries

KOREA

CHINA
· Jiaxing · Qingdao · Jiangsu · Changshu

HONG KONG

VIETNAM
· Dong Nai · Quang Nam
· Ba Ria Vung Tau · Hochiminh City

JAPAN
· Tokyo · Osaka

INDIA
· Haryana

INDONESIA
· Jakarta

MALAYSIA
· Kuala lumpur

TAIWAN
· Taipei

THAILAND
· Bangkok

Europe & Africa

12 locations in 8 countries

GERMANY
· Murg · Bad Saekingen

LUXEMBOURG
· Colmar-Berg

ROMANIA
· Jud. Mures · Sighisoara

RUSSIA
· Moscow

ITALY
· Milanese

SPAIN
· Barcelona

TÜRKIYE
· Maslak Istanbul

SOUTH AFRICA
· Kwazulu Natal
· Gauteng

Americas

8 locations in 2 countries

USA
· Charlotte
· San Diego
· Decatur
· Detroit

MEXICO
· Torreon Coahuila
· Ensenada B.C