HS HYOSUNG ADVANCED MATERIALS

Main Office

HS HYOSUNG ADVANCED MATERIALS Corporation

119 Mapodae-ro, Mapo-gu, Seoul, Korea

T. 82-2-707-6114

www.hshyosungadvancedmaterials.com

HS HYOSUNG Advanced R&D Center for Tech and Innovation (HARTI)

HS HYOSUNG R&D Center (HQ)

74 Simindaero, Dongan-gu, Anyang-si, Gyeonggi-do, Korea

T. 82-31-428-1000

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

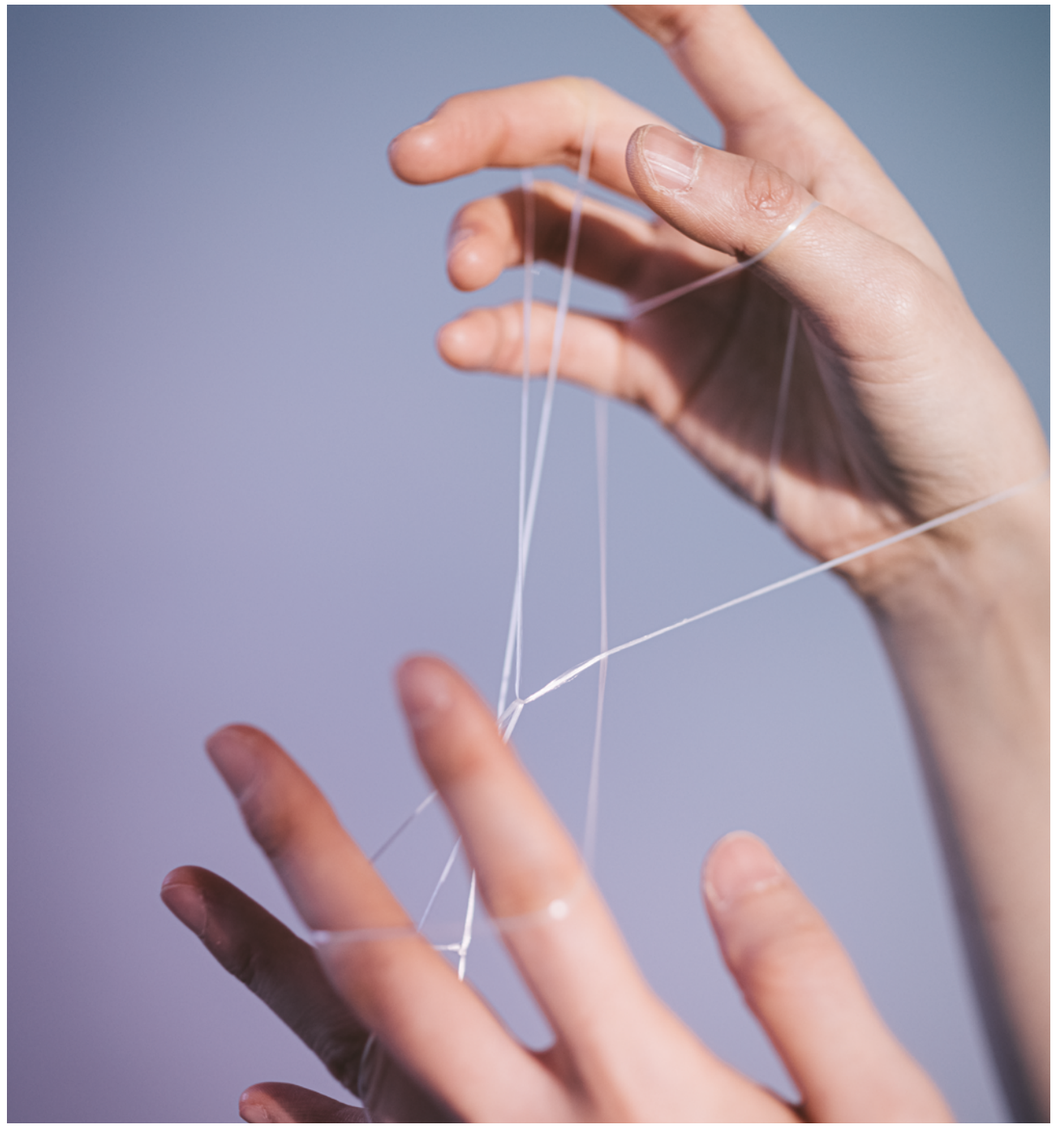
HS HYOSUNG ADVANCED MATERIALS

Safety & Comfort Solution Provider

Technical Yarn

HS HYOSUNG ADVANCED MATERIALS

Technical yarn



CONTENTS

4 HS HYOSUNG Group Story

5 HS HYOSUNG ADVANCED MATERIALS Story

6 Why HS HYOSUNG Technical Yarn

8 HS HYOSUNG Technical Yarn Product

- Seatbelt

- Airbag

- Sewing Threads

14 Properties and Specifications

18 ESG Story

20 Global Networks

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.

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.

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.

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.

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.

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.

The Perfection for Human Safety and Comfort

Tougher and stronger for better safety and comfort



HS HYOSUNG ADVANCED MATERIALS carries the advancement of industrial products.
We believe our open-ended efforts help people enjoy a safer and more convenient life, and that's why we don't stop pushing the limit.

We constantly struggle to research and develop with a mission to protect people and make human life more enjoyable.

As if untangling a tangled skein of thread, HS HYOSUNG ADVANCED MATERIALS has continuously endeavored and researched with persistence and patience for the safety and convenience of life.

As strong as an unbreakable thread,
we will be with you every step of the way.

HS HYOSUNG's technical yarn completes safety.

HS HYOSUNG ADVANCED MATERIALS, at the pinnacle of the global market share for yarn for automobile seat belts, has been supplying unparalleled-quality yarns in various optimal forms to industrial fields such as automotive, manufacturing, and sewing thread since starting the high-performance industrial yarn business in 1985.

No.1

market share of seatbelt yarn globally.
No.1 market share of technical yarn in korea.

Global No.1 Seatbelt

HS HYOSUNG ADVANCED MATERIALS provides yarn with the highest functionality and quality in various areas, from car seat belts and airbags to sewing thread, conveyor belts, rubber hoses, fishing nets, etc.
In particular, when it comes to yarn for automobile seat belts, the company provides optimized solutions based on the trust earned through long-term collaboration with parts companies, ranking first in global market share.

The world's only simultaneous PET and Nylon yarn producer

HS HYOSUNG ADVANCED MATERIALS has developed Korea's first Nylon-66 yarn for airbags and Nylon-66 yarn for high-strength sewing thread used in various applications such as clothing and shoes. The company's commitment to innovation is evident in its success in developing PET yarn, establishing itself as the only company in the world with the technology to produce both PET and NY yarn for airbags and sewing. In addition, we are dedicated to creating new value and growth engines through continuous research, such as developing eco-friendly recycled polyester yarn and customized dyeing yarn.

Eco-friendly mobility

HS HYOSUNG ADVANCED MATERIALS leads the use of eco-friendly products worldwide by developing and producing eco-friendly materials, such as recycled PET sewing thread made from waste PET bottles and supplying it to well-known sports brand manufacturers. Our efforts create sustainable development for industry, the environment, and society.

Seatbelt

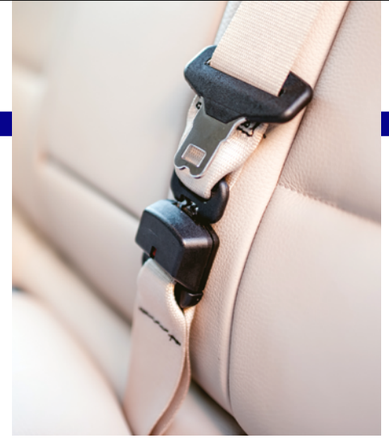
PET

Yarns for seat belts

Seat belts are used in all car models and are so essential for passenger safety that they are called life belts.
HS HYOSUNG ADVANCED MATERIALS' seat-belt yarn is a unique high-quality product with strict appearance control, excellent abrasion resistance, and excellent dyeing properties. We produce various products such as low-denier and black-spun dyed yarns and supply them to leading companies worldwide. Recognized for our superb quality and technology, we are ranked first in global market share in the seat belt field.







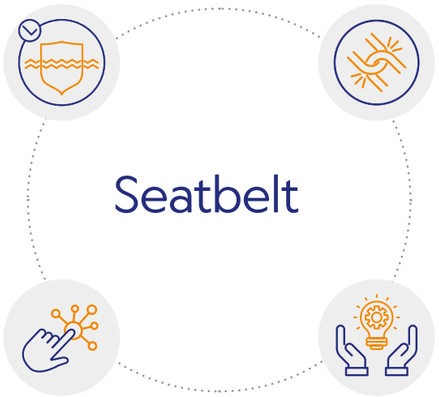


Advantageous in ensuring passenger safety in the event of an accident

Excellent yarn strength

Abrasion resistance and fastness remain constant even after repeated use over time

Stable durability



Diverse product lineup

Production of various products such as warp, weft, binding yarn, black-spun dyed yarn, etc.

Customized solutions

Customer-optimized solutions, such as producing dyed yarns in various colors tailored to needs, converting to eco-friendly materials, etc.

Airbag

PET Nylon-66

Yarns for airbags

HS HYOSUNG ADVANCED MATERIALS is the only company worldwide that can produce PET and Nylon-66 Airbags. Yarn for airbags is used not only in cars but also in bicycles and motorcycles and even in the manufacture of anti-fall devices to protect users from the impact of various accidents in everyday life.





PET yarn for airbags

In order to respond to customers' demands for cost reduction, we are the first in Korea to develop and supply PET yarn for airbags, which can replace existing Nylon-66 yarn, based on continuous research and development and yarn production expertise.



Sewing Threads

PET
Nylon-66

Yarns for sewing

PET and Nylon-66 yarns have excellent durability, elasticity, and quick-drying properties. In addition, we produce various types of sewing yarns, from dope-dyed yarns to fine denier yarns that are thin and high in strength. Most companies are reluctant to produce sewing threads due to low production compared to investments.
Still, HS HYOSUNG ADVANCED MATERIALS took on the challenge, believing that 'there are opportunities in the path less traveled.'
We are continuing our progress toward becoming number one in global market share through expanding our factory in China.

PET yarn for sewing

Used for clothing or bedding; light and soft, comfortable to wear

Nylon-66 yarn for sewing

Used to make sports goods; resistant to friction with high tensile strength, excellent durability







Applications

Shoes



PET and Nylon-66 are moisture-resistant and dry quickly, so they maintain durability for a long time when used to manufacture the outer material, lining, and shoelaces of sports shoes or sneakers.
Nylon-66 is particularly suitable for outdoor shoes, such as hiking and mountaineering shoes, because it is lightweight and has excellent heat resistance.

Clothing



PET is highly durable and dries quickly, so it is widely used to manufacture sports clothing, raincoats, beachwear, T-shirts, sweaters, and jackets.
Because of its high durability and abrasion resistance, Nylon-66 is mainly used to manufacture clothing and activewear where strong friction is expected.
This material is also used in casual wear, luxury brand clothing, sports clothing, and accessories. It is also lightweight and highly heat-resistant, making it suitable for winter coats and outdoor clothing.

Furniture



Both PET and Nylon-66 are lightweight and have excellent heat resistance to be used as leg and armrest fabrics for furniture such as sofas, chairs, and benches.

Camping supplies



PET is used to make tents, sleeping bags, backpacks, etc., and Nylon-66 is mainly used to make vinyl tarps, carriers, etc.

Seatbelt

Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
505-ARS	250d/48f	250	278	2.2	21.6	8.8	7.8	11.5	18.0
511-ARS	500d/48f	510	567	4.3	42.2	8.4	7.4	12.5	16.5
512-ARS	500d/28f	510	567	3.7	36.3	7.3	6.4	30.0	3.0
515-ARS	500d/96f	510	567	4.6	45.1	9.0	8.0	14.0	9.5
516-ARS	630d/48f	630	700	5.2	51.0	8.3	7.3	13.0	17.5
517-ARS	750d/96f	750	833	6.6	64.7	8.8	7.8	14.0	12.5
520-ARS	1000d/72f	1010	1122	9.4	92.2	9.3	8.2	15.5	8.5
525-ARS	1000d/96f	1010	1122	9.4	92.2	9.3	8.2	16.5	9.0
535-ARS	1500d/96f	1520	1689	13.8	135.4	9.3	8.0	15.0	7.5
540-ARS	1500d/144f	1520	1689	14.5	142.2	9.5	8.4	16.0	9.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 150℃ * 30min (Load-free)

Polyester High Tenacity Yarn - Spun dyed Black

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
505-SB	250d/48f	250	278	1.9	18.1	7.4	6.5	20.5	4.0
508-SB	380d/96f	370	411	2.7	26.5	6.9	6.4	18.0	15.5
512-SB	500d/28f	510	567	3.3	32.4	6.5	5.7	28.5	3.5
520-SB	1000d/72f	1010	1122	8.5	83.4	8.4	7.4	17.5	6.5
525-SB	1000d/96f	1010	1122	8.6	84.4	8.5	7.5	16.0	8.5
535-SB	1500d/108f	1525	1694	12.4	121.6	8.1	7.2	17.0	9.0
535-SB	1500d/108f	1530	1700	13.9	136.3	9.1	8.1	15.9	8.3
545-SB	1500d/192f	1545	1717	12.9	126.5	8.3	7.4	18.5	6.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 150℃ * 30min (Load-free)

Chemical Recycle Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
540-CR	1500d/144f	1530	1700	14.5	142.3	9.5	8.4	15.5	9.5
535-CB (Spun dyed)	1500d/108f	1525	1694	12.8	125.9	8.4	7.4	16.1	8.8

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 150℃ * 30min (Load-free)

Airbag

Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
508-AB	420d/120f	430	478	3.8	36.8	8.7	7.7	20.0	5.0
509-AB	420d/96f	420	467	3.5	34.3	8.3	7.3	23.0	4.5
510-AB	500d/96f	502	558	4.5	44.0	9.0	7.9	18.4	6.0
	500d/182f	500	556	4.4	42.7	8.7	7.7	19.5	5.0
511-AB	500d/120f	500	556	4.4	42.7	8.7	7.7	20.0	5.0
	500d/144f	500	556	4.5	44.1	9.0	7.9	23.0	4.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 180℃ * 2min * 0.05g/d

Nylon 66 High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
716-AB	315d/136f	326	362	3.0	29.7	9.3	8.2	23.0	5.0
721-AB	420d/136f	432	480	4.0	39.4	9.3	8.2	23.0	6.0
731-AB	630d/106f	635	706	5.9	57.9	9.3	8.2	20.5	6.5
736-AB	630d/136f	635	706	5.9	57.9	9.3	8.2	22.0	6.5

* Tensile tesing is performed at a yarn twist of 0 TPM
* Shrinkage : 180℃ * 15min (Load-free)

Chemical Recycle Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
508-CR	420d/120f	420	467	3.4	33.4	8.1	7.2	23.0	4.5
516-CR	500d/144f	500	556	4.4	42.7	8.7	7.7	22.0	5.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 180℃ * 2min * 0.05g/d

Sewing Threads

Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
537-SE	70d/24f	67	74	0.6	5.6	8.5	7.6	17.0	5.2
	85d/24f	85	94	0.8	7.6	9.1	8.1	17.0	5.2
539-SE	100d/24f	102	113	0.9	8.7	8.7	7.7	17.0	5.2
541-SE	125d/48f	125	139	1.1	11.0	9.0	7.9	17.0	5.2
	150d/48f	150	167	1.4	13.7	9.3	8.2	14.0	6.0
542-SE	180d/48f	180	200	1.6	15.4	8.7	7.7	17.0	5.2
	210d/48f	210	233	1.8	18.0	8.7	7.7	18.0	5.2
543-SE	250d/48f	250	278	2.2	22.0	9.0	7.9	18.0	5.2
545-SE	300d/48f	300	333	2.6	25.5	8.7	7.7	18.0	5.5
547-SE	410d/96f	410	456	3.6	35.0	8.7	7.7	18.0	5.2
	500d/96f	500	556	4.4	42.7	8.7	7.7	17.0	5.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 180℃ * 15min (Load-free)

Nylon 66 High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
710-SE	210d/34f	210	233	2.0	19.1	9.3	8.2	21.0	4.5
711-SE	280d/68f	280	311	2.6	25.5	9.3	8.2	23.0	4.5
720-SE	420d/68f	430	478	4.0	39.2	9.3	8.2	23.0	4.5
750-SE	630d/136f	640	711	6.0	58.4	9.3	8.2	23.0	4.5
762-SE	840d/136f	845	939	7.6	74.6	9.0	7.9	23.0	4.5
770-SE	1050d/136f	1050	1167	9.5	92.7	9.0	7.9	23.0	4.5

* Tensile tesing is performed at a yarn twist of 0 TPM
* Shrinkage : 180℃ * 15min (Load-free)

Mechanical Recycle Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
537-RR	70d/24f	70	78	0.6	5.6	8.2	7.2	17.0	6.5
540-RR	125d/48f	125	139	1.0	10.1	8.2	7.3	17.0	6.5
	150d/48f	150	167	1.3	12.6	8.5	7.5	17.0	6.5
543-RR	250d/48f	250	278	2.1	20.1	8.2	7.2	17.0	6.5
549-RR	180d/48f	180	200	1.5	14.4	8.2	7.2	17.0	6.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 180℃ * 15min (Load-free)

Technical Yarn

Polyester High Modulus Low Shrinkage Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
HSP-20	1000d/249f	1030	1144	8.2	80.4	8.0	7.0	12.5	7.0
HSP-40	1000d/328f	1000	1111	8.1	79.5	8.1	7.2	12.5	4.8
	2000d/515f	2040	2267	15.5	152.1	7.6	6.7	15.0	4.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 180℃ * 2min * 0.05g/d

Polyester Coated Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
550-CY	250d/48f	250	278	2.0	19.1	7.8	6.9	22.0	4.5
556-CY	420d/96f	420	467	3.1	30.4	7.4	6.5	26.0	4.0

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 190℃ * 15min * 0.01g/d(Load-free)

Polyester Sail Cloth Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
502	220d/48f	220	244	2.0	19.1	8.9	7.8	12.0	12.5
508	350d/48f	350	389	3.2	30.9	9.0	7.9	13.0	12.5

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 150℃ * 30min (Load-free)

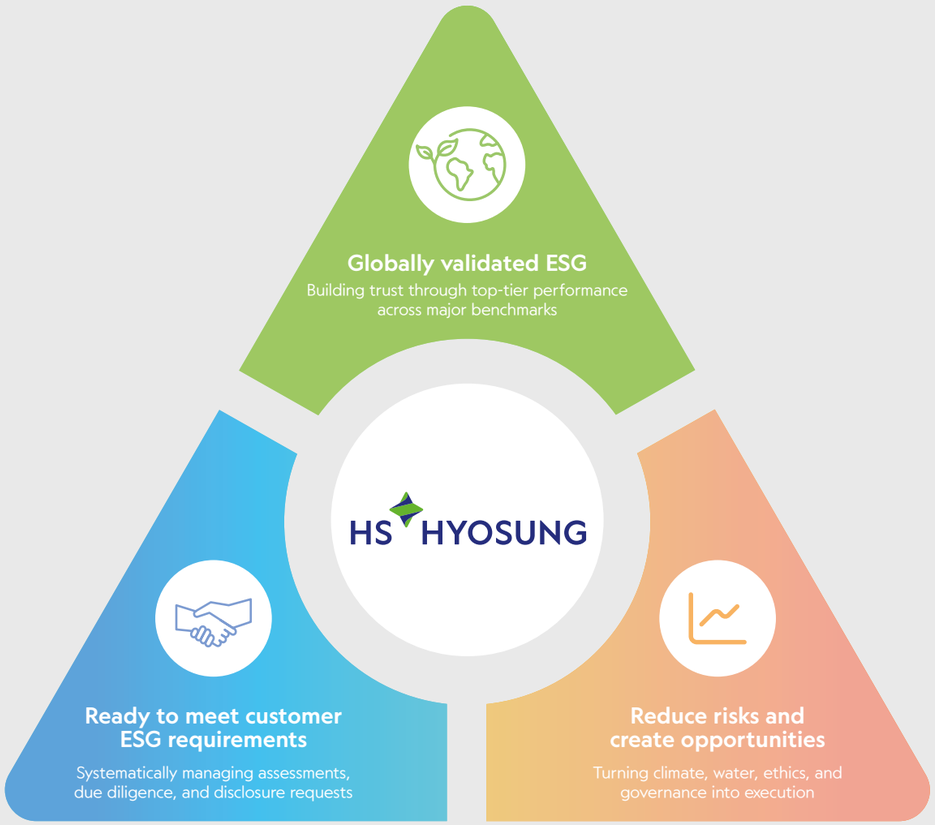
Polyester Fishing Nets

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex	%	%
940	1000d/96f	1000	1111	7.0	68.7	7.0	6.2	30.0	3.8
943	1250d/126f	1250	1389	8.8	86.3	7.0	6.2	30.0	3.0
946	1500d/126f	1500	1667	10.5	103.0	7.0	6.2	28.5	3.0

* Tensile tesing is performed at a yarn twist of 80 TPM
* Shrinkage : 150℃ * 30min (Load-free)

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

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

Detailed information regarding our ESG initiatives is available at

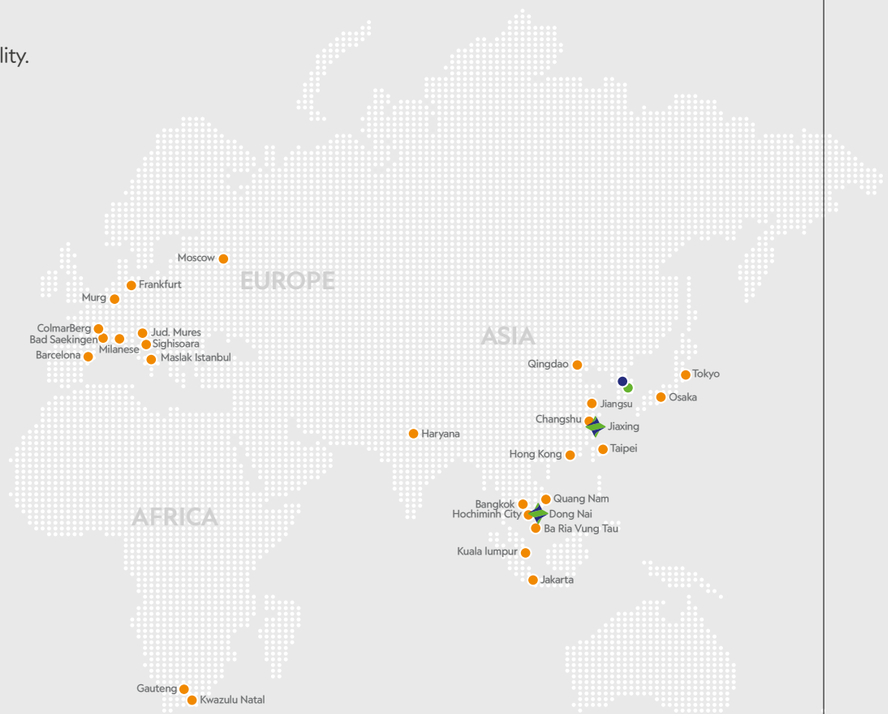
Global Networks

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



TECHNICAL YARN NETWORKS

Technical yarn production site

16 locations in 12 countries

1 HQ
· Korea

2 Plants
· China
· Vietnam

9 Sales offices
· Korea
· USA
· Germany
· Japan
· Taiwan
· Italy
· Turkiye
· India
· Spain

4 Warehouses
· United States
· Luxembourg
· India
· Japan

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