

The Perfection for Human **Safety** and **Comfort**



Technical Yarn Performance Unit



HYOSUNG ADVANCED MATERIALS CORPORATION

Technical Yarn Performance Unit

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2019

HYOSUNG ADVANCED MATERIALS

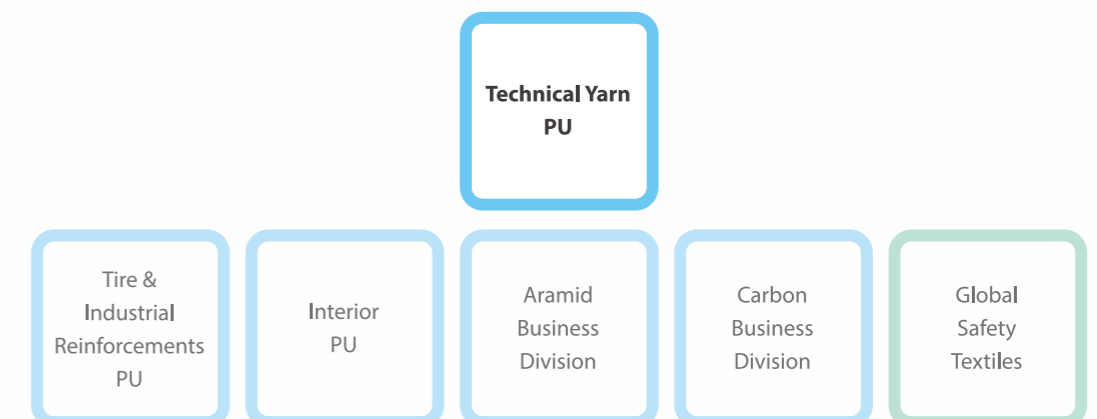
The Perfection for Human Safety and Comfort

Hyosung Advanced Materials began as a business unit dealing with industrial yarn as part of Dongyang Nylon and Dongyang Polyester, the founding fathers of Hyosung Group, and has continued to grow to become a leading global material vendor offering some of the world's finest products based on proprietary technologies and non-stop innovation. Since the entry into the polyester technical yarn business, which is broadly used in building, civil works, in-vehicle, transportation, normal industry sites, etc., in 1986, Hyosung has been expanding the production scale for the growth of the downstream industry in Korea and overseas countries. By supplying optimal yarn appropriate for the use of each field, such as broad woven coated fabrics for building and civil works, seat belts and power transmission belts for cars, industrial conveyor belts, straps, and sewing threads, Hyosung gains diverse customer trust, and particularly, seat belts for cars retain the No.1 market share in the world.

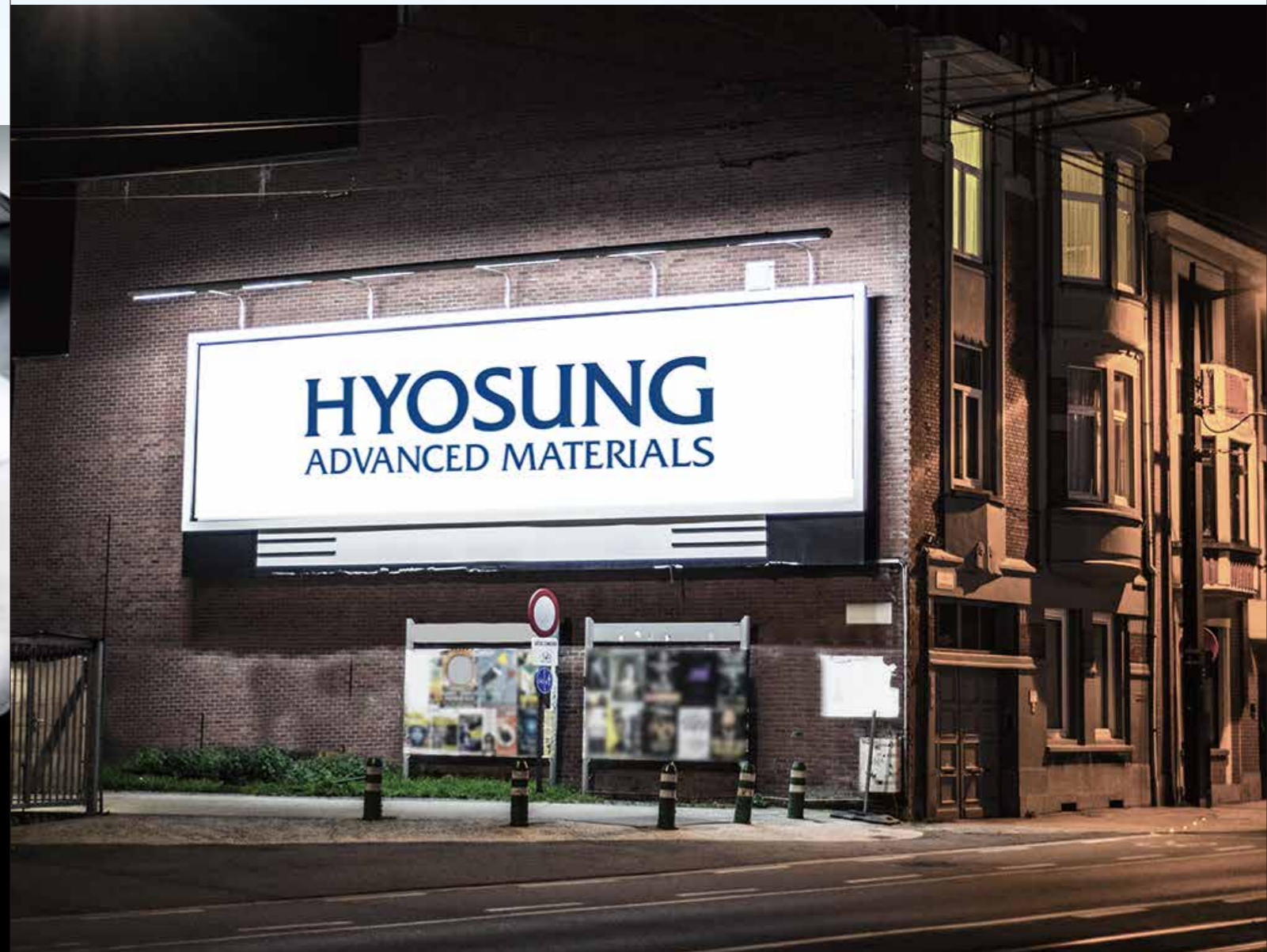
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HYOSUNG
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Enjoy a comfortable life with Hyosung's Technology



Technical Yarn Performance Unit

Since the launch of technical polyester yarn business in 1986, Technical Yarn PU has grown to be Korea's no.1 player. Currently the PU is continuously expanding domestic and overseas capacity so that it may increase oversea sales in order to become a global leader in the technical yarn industry. We have gained customers' confidence by providing the highest quality polyester yarn with optimized functions for various areas, including broad woven coated fabric for roofing and tarpaulins, seat belts, power transmission belts for vehicles, sewing threads, and fishing net threads. In particular, we have the world's largest market share in yarn for automotive seat belts. In addition, Hyosung has conducted R&D operations since the early stages of its business, and through technological advances has developed and produced high-value products such as Super High Tenacity Yarn (10.5g/d) and Super Low Shrinkage Yarn (shrinkage factor 1.3 percent). We have also established local production and supply systems: beaming plant in Cherry Ville, North Carolina, USA, yarn plants in Jiaxing, China and Hochiminh, Vietnam. In the meantime, Hyosung has also established a solid foundation for sustainable growth by expanding its business to automotive airbag yarn made of nylon 66 as well as polyester, which has great potential, and supplying the products to major car makers globally.

NO. 1 market share of seatbelt yarn globally.
No.1 market share of technical yarn in Korea.

Global Networks

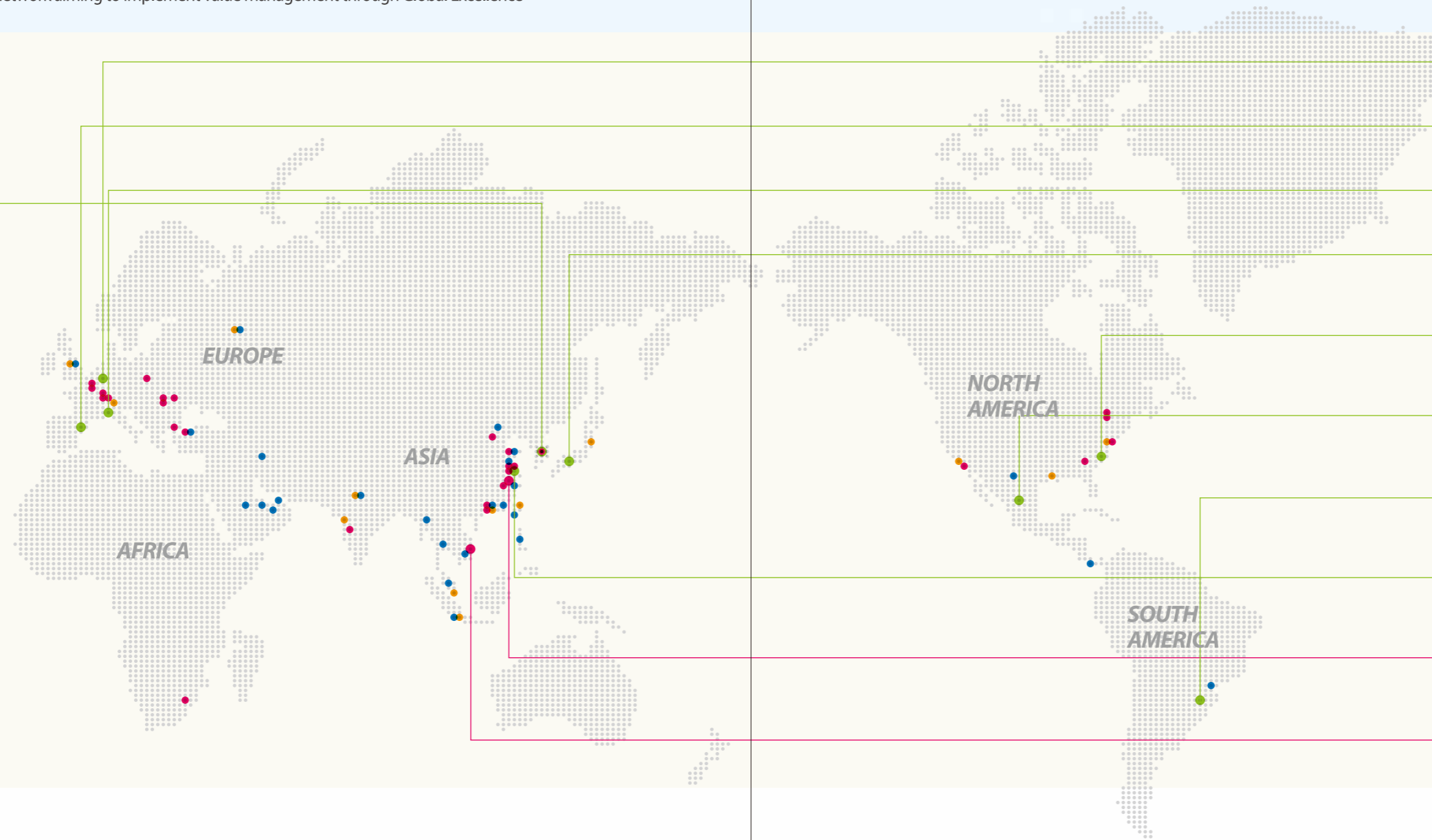
Hyosung is establishing a global network aiming to implement value management through Global Excellence

- Main Office
- Manufacturing Entities
- Trading Entities
- Trading Offices
- R&D

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Headquarters
Hyosung Technical Yarn Performance Unit is leading the world technical textile market by producing and providing high-tenacity polyester, Nylon66 filaments. Our customer oriented R&D, QC & Production, and Global Sales & Service Network will satisfy every customer's various needs.



R&D Center
Central Research Institute was established as the first private-sector research institute in Korea. Focusing particularly on synthetic fibers, the R&D activities have covered a vast range of research themes, from polymerization and spinning to finish process.



Production Plant in Ulsan, Korea
Since 1985 Hyosung's Ulsan plant has started producing technical yarns for coated fabrics, seat belt, webbing and specialties. Our automated process control and reliable quality assurance will fulfill each customer's highest expectations.



Production Plant in Jiaxing, China
Hyosung's Jiaxing plant in China started production of technical yarn, polyester, for coated and laminated fabric from May, 2005. With fully equipped quality control system, our products will meet various range of customer's specifications.



Production Plant in Nhon Trach, Vietnam
We have invested Vietnam plant as the next step in Technical Yarn PU's global growth strategy in order to serve the global market. The state-of-the-art facility is world class competitive to ensure fast and reliable service from November, 2011



Automotive Seat Belts

Hyosung supplies yarn for diverse seat belts, such as low denier and black spun dyed yarn, to the world's leading seat belt weavers and its quality and technical capabilities are widely recognized

Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
502	220/48	220	244	1.9	18.7	8.7	7.7	4.0 (1.00)	12.0	12.5
505	250/48	250	278	2.2	21.6	8.8	7.8	4.0 (1.13)	11.5	18.0
508	350/48	350	389	3.2	30.9	9.0	7.9	4.8 (1.58)	13.0	12.5
510	500/48	510	567	4.3	42.2	8.4	7.4	5.5 (2.30)	12.5	16.5
512	500/28	510	567	3.7	36.3	7.3	6.4	16.0 (2.30)	30.0	3.0
515	500/96	510	567	4.3	42.2	8.4	7.4	6.0 (2.30)	14.0	13.0
516	630/48	630	700	5.2	51.0	8.4	7.4	6.0 (2.80)	13.0	17.5
517	750/96	750	833	6.6	64.7	8.8	7.8	5.0 (3.40)	14.0	12.5
520	1000/72	1010	1133	9.4	92.2	9.3	8.2	7.0 (4.50)	15.5	8.5
525	1000/96	1008	1120	9.4	92.2	9.3	8.2	7.0 (4.50)	15.5	8.5
530	1300/126	1320	1467	12.4	121.6	9.4	8.3	5.5 (5.90)	14.5	9.5
535	1500/108	1520	1689	13.8	135.4	9.1	8.0	6.0 (6.80)	15.5	9.5
540	1500/144	1520	1689	14.3	140.3	9.4	8.3	6.0 (6.80)	14.5	9.5
541	1500/192	1520	1689	14.3	140.3	9.4	8.3	6.0 (6.80)	15.0	9.5

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 150°C × 30min (Load-free)

Polyester High Tenacity Yarn – SB Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
506-SB	250/48	250	278	1.9	18.1	7.4	6.5	9.0 (1.13)	20.5	4.0
508-SB	380/96	370	411	2.7	26.5	7.3	6.4	5.0 (1.70)	19.0	15.0
512-SB	500/28	510	567	3.3	32.4	6.5	5.7	13.5 (2.30)	28.5	3.5
515-SB	500/96	510	567	3.5	34.3	6.9	6.1	13.0 (2.30)	27.5	3.0
521-SB	1000/72	1010	1122	8.5	83.4	8.4	7.4	7.3 (4.50)	17.5	6.5
525-SB	1000/96	1010	1122	8.6	84.4	8.5	7.5	7.0 (4.50)	16.0	8.5
535-SB	1500/108	1525	1694	12.4	121.6	8.1	7.2	7.0 (6.80)	17.0	9.0
541-SB	1500/192	1545	1717	12.4	121.6	8.0	7.1	8.0 (6.80)	18.0	6.5

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 150°C × 30min (Load-free) * Shrinkage : 180°C X 15min (Load-Free) - Type 508-SB * SB : Spun Dyed Black

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
502, 505, 508, 512, 516, 517 506-SB, 508-SB	11	94 / 106 / 300	250	90	990	1090 / 1220 / 1560
525, 530, 535, 540, 541 521-SB, 525-SB, 535-SB, 541-SB	11	94 / 106 / 350	240	115	1265	1090 / 1220 / 1920

Applications Safety belts for automobiles, Sail cloth



Airbags

Hyosung has developed Korea's first Nylon 66 yarn for airbags currently available in the market. To satisfy the change in the airbag market and customer needs, the company supplies various kinds of yarn products

Nylon 66 High Tenacity Yarn - AB Type

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	315/136	320	356	3.0	29.2	9.3	8.2	23.0	5.0
721-AB	420/136	425	472	4.0	38.7	9.3	8.2	23.0	6.5
725-AB	525/136	530	589	4.9	48.3	9.3	8.2	21.0	5.5
730-AB	630/136	635	706	6.2	60.3	9.7	8.6	22.0	6.5
731-AB	630/106	635	706	5.9	57.8	9.3	8.2	23.0	6.5

* Tensile testing is performed at a yarn twist of 0 TPM

* Shrinkage: 180°C × 2min × 0.05g/d.

* AB : Airbag Yarn

Polyester High Tenacity Yarn - AB Type

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	420/96	420	467	3.5	34.3	8.3	7.4	23.0	4.5
508-AB	420/144	420	467	3.8	37.2	9.0	7.9	23.0	4.5
510-AB	500/144	500	556	4.5	44.1	9.0	7.9	23.0	4.5
511-AB	500/120	500	556	4.4	42.6	8.7	7.7	20.0	5.0

* Tensile testing is performed at a yarn twist of 80 TPM

* Shrinkage : 180°C × 15min (Load-free)

* AB : Airbag Yarn

* We produce 420d/120f and 500d/182f constructions based on customer's order

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
716-AB, 721-AB, 730-AB, 731-AB	8	94 / 106 / 200	300	60	480	1090 / 1220 / 1140
508-AB, 511-AB	8	94 / 106 / 200	270	80	640	1090 / 1220 / 1140

Applications Automotive Airbag





Coated and Uncoated Broad Woven Fabrics

Hyosung's high-modulus, low shrinkage yarn enhances the value of our clients' products with its even shrinkage factor and excellent exterior quality

Polyester Low Shrinkage Yarn - LS Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
542	210/48	210	233	1.6	15.2	7.4	6.5	13.0 (0.95)	24.5	3.2
550	250/48	250	278	1.9	18.1	7.4	6.5	13.5 (1.13)	25.0	3.2
556	420/72	420	467	3.1	30.4	7.4	6.5	14.0 (1.89)	26.5	3.0
560	500/96	490	544	3.6	35.3	7.3	6.5	13.5 (2.25)	25.0	3.0
565	840/192	840	933	6.6	64.7	7.9	6.9	14.0 (3.80)	22.5	3.0
570	1000/192	1000	1111	7.9	77.5	7.9	7.0	16.0 (4.50)	24.5	2.4
570	1000/192	1000	1111	7.9	77.5	7.9	7.0	14.5 (4.50)	22.5	2.8
580	1300/192	1300	1444	10.1	99.1	7.8	6.9	13.7 (5.90)	22.0	3.2
590	1500/192	1500	1667	11.7	114.8	7.8	6.9	14.3 (6.80)	22.0	3.2
595	2000/384	2020	2244	15.8	154.5	7.8	6.9	14.5 (9.00)	25.0	2.8

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 190°C × 15min × 0.01g/d.

Polyester Low Shrinkage Yarn - SL Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
560-SL	500/96	500	556	3.9	38.3	7.8	6.9	17.0 (2.25)	28.0	1.5
570-SL	1000/192	1000	1111	8.7	85.3	8.7	7.7	15.0 (4.50)	24.0	1.8
	1000/192	1000	1111	8.2	80.4	8.2	7.2	16.5 (4.50)	24.5	1.5
	1000/192	1000	1111	8.3	81.4	8.3	7.3	17.0 (4.50)	25.0	1.3

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 190°C × 15min × 0.01g/d. * SL : Super Low Shrinkage Yarn

Polyester Low Wick Yarn - LW Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Break	Hot Air Shrinkage	Anti Wicking
		denier	dtex	kgf	N	g/d	cN/dtex			
570-LW	1000/192	1000	1111	8.3	81.4	8.3	7.3	26.0	1.3	< 60
	1000/192	1000	1111	7.9	77.5	7.9	7.0	22.5	2.8	< 40

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 190°C × 15min × 0.01g/d * LW : Low Wick

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
542, 550, 556, 560	10	94 / 105 / 230	275	112	1120	1090 / 1220 / 1810
565, 570, 580, 590, 595 560-SL, 570-SL	12	94 / 105 / 300	270	80	960	1090 / 1220 / 1670

Applications Coated or Laminated fabrics for roofing, truck tarpaulin, signs, boat cover, etc. / High quality signboard & billboard, etc. / Roofing, banner, tent, awning, outdoor furniture



Geo-Synthetic Fabrics

Hyosung's geo synthetics yarn is used in civil engineering and comes in various products in order to meet various customer needs

Polyester High Tenacity Yarn - ST Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
380-ST	1000/192	1010	1122	10.6	104.0	10.5	9.3	4.5 (4.50)	11.0	12.0
	1000/192	1010	1122	10.6	104.0	10.5	9.3	4.5 (4.50)	11.0	10.0
395-ST	2000/384	2020	2244	20.8	204.0	10.3	9.1	5.0 (9.00)	13.0	9.0
397-ST	3000/384	3060	3400	31.5	309.0	10.3	9.1	6.5 (13.5)	11.8	12.8
398-ST	4000/768	4080	4533	40.4	396.3	9.9	8.7	5.3 (18.0)	13.3	9.0

* Tensile testing is performed at a yarn twist of 80 TPM
* Shrinkage : 150°C × 30min (Load-free)
* ST : Super High Tenacity

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
All ST Type	11	94 / 106 / 350	240	115	1265	1090 / 1220 / 1920

Applications Geo-Textile





Mechanical Rubber Goods

MRG yarn has excellent adhesion to rubber and high modulus (high tenacity and low elongation) based on advanced technology and knowhow

Polyester Adhesive Activated Yarn - AA Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
360-AA	840/96	840	933	7.8	76.5	9.3	8.2	7.0 (3.78)	14.5	15.0
380-AA	1000/192	1010	1122	9.4	92.2	9.3	8.2	6.0 (4.50)	14.0	15.0

* Tensile testing is performed at a yarn twist of 80 TPM
 * Shrinkage : 180°C × 15min (Load-free)
 * AA : Adhesive Activated Yarn

Polyester Adhesive Activated Yarn - MA Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
381-MA	1000/192	1010	1122	8.7	85.3	8.6	7.6	6.8 (4.50)	15.0	6.0
392-MA	1500/192	1530	1700	13.3	130.5	8.7	7.7	8.5 (6.80)	16.0	6.0
397-MA	2000/384	2020	2244	18.7	183.4	9.3	8.2	6.5 (9.00)	15.0	6.0
397-MA	2000/384	2020	2244	17.4	170.7	8.6	7.6	7.5 (9.00)	16.0	6.0

* Tensile testing is performed at a yarn twist of 80 TPM
 * Shrinkage : 180°C × 15min (Load-free)
 * MA : Medium Shrinkage Adhesive Activated Yarn

Polyester High Modulus Low Shrinkage Yarn - HMLS Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
HSP-20	1000/249	1030	1144	8.2	80.4	8.0	7.0	5.4 (4.50)	12.5	7.0
HSP-40	1000/328	1000	1111	8.1	79.1	8.1	7.1	5.6 (4.50)	12.5	4.8
	2000/515	2040	2267	15.5	152.1	7.6	6.7	6.5 (9.00)	15.0	4.5

* Tensile testing is performed at a yarn twist of 80 TPM
 * Shrinkage : 150°C × 30min (Load-free)

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
All ST Type	12	94 / 105 / 300	270	48	576	1090 / 1220 / 1060
All MA Type	12	94 / 105 / 300	270	80	960	1090 / 1220 / 1670

Applications Conveyer belt, transmission belt & hose



Sewing Threads

Hyosung supplies sewing yarn of excellent tenacity, abrasion resistance, uniformity, and dyeing property to its global clients

Nylon 66 High Tenacity Yarn - SE Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
700-SE	100/34	105	117	0.9	9.0	8.8	7.7	9.0 (0.54)	24.0	6.5
710-SE	210/34	210	233	2.0	19.1	9.3	8.2	10.0 (1.13)	21.0	4.5
713-SE	280/68	285	317	2.7	26.0	9.3	8.2	11.0 (1.50)	23.0	4.5
720-SE	420/68	430	478	4.0	39.2	9.3	8.2	11.5 (2.25)	23.0	4.5
750-SE	630/136	640	711	6.0	58.4	9.3	8.2	11.5 (3.38)	23.0	4.5
762-SE	840/136	845	939	7.6	74.6	9.0	7.9	12.0 (4.50)	23.0	4.5
770-SE	1050/136	1050	1167	9.5	92.7	9.0	7.9	13.0 (5.60)	23.0	4.5
780-SE	1260/272	1265	1406	11.4	111.3	9.0	7.9	13.0 (6.75)	23.0	4.5

* Tensile testing is performed at a yarn twist of 0 TPM * Shrinkage : 180°C × 15min (Load-free) * SE : Sewing Thread Yarn

Polyester High Tenacity Yarn - SE Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
536-SE	50/10	50	56	0.4	3.9	8.0	7.1	7.5 (0.23)	20.0	5.2
537-SE	70/24	67	74	0.6	5.6	8.5	7.5	8.0 (0.32)	17.0	5.2
539-SE	100/24	102	113	0.9	8.7	8.7	7.7	7.5 (0.45)	17.0	5.2
541-SE	125/48	125	139	1.1	10.7	8.7	7.7	7.5 (0.56)	17.0	5.2
	150/48	150	167	1.3	12.8	8.7	7.7	8.0 (0.68)	17.0	5.2
542-SE	210/48	210	233	1.8	18.0	8.7	7.7	8.0 (0.95)	18.0	5.2
543-SE	250/48	250	278	2.2	21.4	8.7	7.7	8.5 (1.13)	18.0	5.2
545-SE	300/48	300	333	2.6	25.6	8.7	7.7	8.5 (1.35)	18.0	5.2
546-SE	330/48	330	367	2.9	28.2	8.7	7.7	10 (1.49)	20.0	5.2
547-SE	420/72	420	467	3.7	35.8	8.7	7.7	9.0 (1.89)	19.0	5.2
	410/96	410	456	3.6	35.1	8.7	7.7	8.5 (1.85)	18.0	5.2
560-SE	500/96	500	556	4.4	42.8	8.7	7.7	8.5 (2.25)	19.0	5.2
562-SE	640/96	640	711	5.4	53.1	8.5	7.5	8.5 (2.88)	19.0	9.0

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 180°C X 15min (Load-Free) * SE : Sewing Thread Yarn

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
All Nylon66 SE Type	10	94 / 105 / 230	300	48	480	1090 / 1220 / 1100
546-SE, 547-SE, 562-SE	10	94 / 105 / 230	270	112	1120	1090 / 1220 / 1810

Applications Sewing thread





Narrow Woven Fabrics, Ropes & Nets

Hyosung has striven to enhance quality and provide new value for its clients by developing general purpose high tenacity yarn of 9.4g/d and super high tenacity yarn at the level of 10.5g/d

Polyester High Tenacity Yarn - HT Type

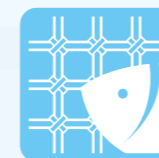
Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
381	1000/192	1010	1122	9.3	91.2	9.2	8.1	5.5 (4.50)	14.0	9.0
371	1300/108	1315	1461	12.4	121.6	9.4	8.3	6.0 (5.85)	15.0	7.0
391	1500/192	1500	1667	14.3	140.2	9.5	8.4	5.5 (6.75)	15.0	7.0

* Tensile testing is performed at a yarn twist of 80 TPM
 * Shrinkage : 150°C × 30min (Load-free)
 * Shrinkage : 177°C × 10min × 0,056g/d (Oven) - Type 371, 391

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
381	12	94 / 105 / 300	270	80	960	1090 / 1220 / 1670

Applications Industrial webbing for lashing and sling rope, net strap



Fishing Nets

Hyosung's high tenacity fishing net yarn has excellent tenacity and yarn dyeing quality

Nylon 6 High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
911	630/21	620	689	4.8	47.1	7.7	6.8	17.0 (3.38)	31.0	10.5
912	840/28	840	933	6.5	63.8	7.7	6.8	17.5 (4.50)	32.0	10.5
820	840/136	830	922	7.2	70.6	8.7	7.7	15.0 (4.50)	27.0	9.5
930	1680/272	1680	1867	14.4	141.1	8.6	7.6	15.5 (9.00)	27.0	9.5

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 160°C × 30min (Load-free) - Type 820, 930 * Shrinkage : Boiling Water 100°C × 30min (Load-free) - Type 911, 912

Nylon 6 High Tenacity Yarn - NB Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
911-NB	630/21	620	689	4.8	47.1	7.7	6.8	16.0 (3.38)	29.0	10.5
912-NB	840/28	840	933	6.5	63.8	7.7	6.8	16.5 (4.50)	30.0	10.5

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : Boiling Water 100°C × 30min (Load-free) * NB : Nylon 6 Black Yarn

Polyester High Tenacity Yarn

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
940	1000/126	1000	1111	7.0	68.7	7.0	6.2	14.0 (4.50)	24.0	3.0
943	1250/126	1250	1389	8.8	86.3	7.0	6.2	13.0 (5.60)	25.0	3.0
946	1500/126	1500	1667	10.5	103.0	7.0	6.2	13.0 (6.80)	25.0	3.0

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 150°C × 30min (Load-free)

Polyester High Tenacity Yarn - PB Type

Type No.	Denier/ Filaments	Linear Density		Strength at Break		Tenacity		Elongation at Specific Load	Elongation at Break	Hot Air Shrinkage
		denier	dtex	kgf	N	g/d	cN/dtex			
920-PB	750/96	750	833	5.5	54.0	7.3	6.5	13.5 (3.40)	25.0	2.7
922-PB	1000/96	1010	1122	7.4	72.6	7.3	6.5	13.5 (4.50)	25.0	2.7
925-PB	1250/126	1250	1389	9.1	89.3	7.3	6.4	14.0 (5.60)	25.0	2.7
928-PB	1500/144	1500	1667	10.9	106.9	7.3	6.4	14.5 (6.80)	25.0	2.7

* Tensile testing is performed at a yarn twist of 80 TPM * Shrinkage : 150°C × 30min (Load-free) * PB : Polyester Black Yarn

Package Size

Type No.	Bobbin Weight	Tube Dimension	Bobbin Diameter	Bobbin per pallet	Pallet Weight	Pallet Size
	(max kg)	Innerø/Outerø/Length (mm)	ø (mm)	#	(kg)	Width/Length/Height (mm)
911, 912, 820, 930 911-NB, 912-NB	6.5	94 / 105 / 300	230	138	897	1090 / 1220 / 1960
940, 943, 943	10	94 / 105 / 300	250	108	1080	1090 / 1220 / 1960
920-PB, 922-PB, 925-PB, 928-PB	11	94 / 106 / 350	240	115	1265	1090 / 1220 / 1920

Applications High tenacity industrial fabrics, hose, webbing

