FiberVisions® Technical Fibers

FiberVisions sells a broad range of technical fibers into a diverse group of markets and applications.

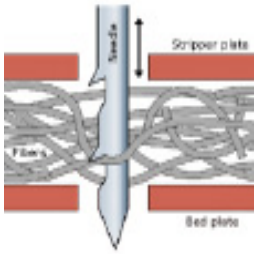
These fibers deliver good processability and consistent quality. We are able to match the requirements of all common fiber processing technologies with the following programs:

Geosynthetic fibers

Primarily developed for geotextiles and other durable fabrics and needlepunched fabrics. The key elements of the fibers are:

- fiber strength
- efficient performance/price ratio
- high quality

Specialty Fibers



These fibers are used for both nonwoven technologies - carded webs which are either thermal bonded, needlepunched or spunlaced - and for yarn spinning - woolen, semi-worsted or ring spun yarns.

These fibers have additional functionalities by using additives and selected raw materials.

Short cut fibers

Short cut fibers are often used to reinforce composite structures and to lengthen the lifetime of the final product.

These fibers are developed with the focus on:

- Dispersability and mixability
- Strength
- Quality and consistency
- Good performance/price ratio

T-153 shortcut fibers in a wetlaid web formation process.

FiberVisions® products have the following common characteristics:

- Fibers are available in a wide range of titers from 1.2 - 30 denier.

- Fibers can be delivered in a wide range of cut lengths. Boxed short cut fibers are typically 5 - 25 mm while baled staple fibers are typically 38 - 150 mm (1½" - 6").

- Fine fibers allow smaller pore size and control of filtration mechanisms and capability.

- Profiled shapes improve coverage and aesthetics and provide specific performance characteristics.

Performance profile of polypropylene fibers

FiberVisions® fibers have a number of advantages over other man-made fiber types:

Density. The density of polypropylene is 40% lower than polyester and 25% lower than nylon (polyamide). This means that lightweight fabrics can be made with excellent bulk and cover from lower denier yarns than from other fiber types.

Mechanical Properties. Polypropylene fibers can be engineered to have a wide range of mechanical properties. The FiberVisions® fiber is highly resistant to abrasion and has a toughness superior to most fibers.

Colorfastness. When color is introduced in the melt (solution dyed) the color is inherent in the product. It will not bleed or fade.

Comfortable. Polypropylene is a very comfortable and soft fiber. It has a low modulus which ensures good drapeability, and it has excellent resistance to static build-up.

Insulation. Polypropylene has the lowest conductivity of all textile fibers.

Moisture regain. Polypropylene absorbs no water. This has a number of positive benefits including resistance to aqueous stains, ease of maintenance, and excellent moisture transport properties.

Resistance. Polypropylene is inert to acids, alkalis and other chemicals. It is resistant to rot, mildew and bacteria.

Technical Service. FiberVisions believes in offering extensive technical service to its customers. This includes fiber innovation programs, exclusive fiber development, color matching, fiber quality enhancements, etc.

Evaluate a FiberVisions® fiber in your next design ideas!

See Overleaf ➔

Range of Technical Fibers: Trade Name and Characteristics

FiberVisions® develops, manufactures and markets polyethylene, polypropylene monocomponent and bicomponent (PE/PP) fibers. These versatile fibers find their way into a wide range of textile products.

Our fibers can be used in any staple fiber based textile process (drylaid, wetlaid and airlaid) and in any spinning system.

Polyolefin fibers are an excellent alternative to other synthetic fibers as they have a low density and good strength and elongation properties. Furthermore, the fibers are resistant to chemicals and abrasion. Polyolefins can be recycled.

Many of these fibers can be FDA compliant (or EU equivalent) upon request.

Our fibers are supported by a Global Technology Organization with pilot spinning and fiber processing capabilities (including nonwoven facilities), extensive analytical capabilities on raw materials, fibers and nonwovens, and a network with key test facilities supporting the use of staple fibers.

Fibers for spunlace

FiberVisions® T-133/HY-Entangle
- 1.7 and 2.2 dtex.
- Soft fiber with excellent carding and good MD/CD strength, elongation and bulkiness

FiberVisions® T-135/HY-Wettable
- for absorbent fabrics based on 100% synthetic fibers

Fibers for filtration, automotive and other technical textiles

FiberVisions® Binder Fibers
- 1 to 20 dtex
- Thermobondable fibers that result in good nonwoven fabric strength and elongation.

FiberVisions® Elevated Temperature fibers
- 3.3 to 11 dtex
- Type 1 ET fibers will retain consistent fiber strength throughout their lifetime until failure occurs.
- Type 2 ET fibers will show a gradual decrease in strength through their lifetime. They are also stable against UV radiation.

FiberVisions® NForz/T-142 fibers
- 1.7 to 10 dtex
- Needle punch fibers that result in good fabric strength and elongation.
- NForz ET for elevated temperature applications

FiberVisions® MBond fibers
- 2.2 - 6.7 dtex
- Binder fibers for blends with natural and synthetic fibers

ES FiberVisions Bico fibers
- 1.7 to 16 dtex
- Binder fibers which create a three dimentional network throughout the fabric avoiding the use of chemical binders.
- Bondable to various fiber types.

Fibers for wetlaid:

FiberVisions® Create WL/T-153
- 1.7 to 6.7 dtex
- Shortcut heat-sealable fibers that give good dry and wet strength.

ES FiberVisions Bico fibers
- 1.7, 2.2 and 3.3 dtex
- Applicable for wetlaid systems making reinforced paper materials or wetlaid nonwovens product

Common attributes for fibers in the FiberVisions product line include

- The fiber's strength, spin finish type and content can be adjusted for each specific application, supported by strong R&D experience.
- High quality fibers from uniform long-spin fiber manufacturing.
- Our long spin fibers have a broad temperature window, which makes thermal bonding of the fabric very easy and convenient.

Other fibers

FiberVisions also develops and manufactures polypropylene fibers for individual requirements:
- Finer denier fibers to allow finer pore size and control of the filtration mechanism and capability.
- Bulky fibers to achieve voluminous products.
- Fibers for concrete reinforcement.

Web Formation

		Dry Laid	Wet Laid	Air Laid
Web	Air Through Bonding	M / B	M / B	M / B
Consolidation	Calender Bonding	M / B	M / B	B
	Hydroentangling	M / B	M	B
	Needle Punching	M / B		

M = monocomponent fibers available from FiberVisions
B = bicomponent fibers available from ES FiberVisions

FiberVisions® Product Range:

Product Name	Diameter Denier	Diameter Dtex	Cut length Inch	Cut length mm	Color	Features	Typical Application
Geosynthetic Fibers:							
T-142	5, 8		4		Black	Tenacity: min. 4 g/den.	Geotextiles
T-142	5		4		Bright	Tenacity: min. 4 g/den.	Geotextiles
T-142	6		3.5		Black	Tenacity: min. 5 g/den.	Geotextiles
HY-Draw		3.3-8.8		40-100			Geotextiles
T-142	3		3		Bright, Black, Tan		Furnishing
Industrial Fibers:							
HY-Draw		3.3		50, 80			Substrates
HY-Draw		3.3		40	Black		Needlepunch
HY-Comfort		2.8		50			Filtration
HY-Comfort		9.9		40	White	High elongation	
NForz ET		1.7-10		40, 50, 60, 80			Filtration
Elevated Temperature	3.3 to 11		0.5-4	12-100			Automotive composites
Specialty Fibers: (for nonwovens and yarn spinning)							
T-101	1.8, 3, 6		1.5, 1.88, 3			General purpose fiber	
T-123	1.8, 3.6, 25		1.5, 1.88, 3			FDA-approvable	Teabags
T-133	1.7, 3.3		1.5				Spunlace
T-142	2.5, 3.25		1.88, 2.5, 3.25			General purpose fiber	
HY-Shrink	1.5-9	1.7-9.9	1.25, 1.5	25, 38			Bulky nonwovens
T-193	1.9, 2.2		1.5		White	General purpose fiber	
T-196	4	4.4	1.88				Closure system
Short Cut Fibers:							
T-153/	2.2			5		Paper reinforcement	Wetlaid
Create WL		1.7 - 6.7		5		Paper reinforcement	Wetlaid
T-426	2			5		PP/PE Bico	Tea bags
T-153	3			5		Refractory fibers	
T-157	4, 15			10		Reinforcement fiber	Asphalt
T-158	7, 15		0.75			Reinforcement fiber	Concrete

FiberVisions® fibers are produced at FiberVisions manufacturing facilities in Covington, and Athens, GA, USA, Varde Denmark, and Suzhou China.

All sites have ISO 9001 certification.

FiberVisions®

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