

Fibers for Textiles

FiberVisions® T-111 CoolVisions® Dyeable Polypropylene Fiber - for air jet spinning

CoolVisions® dyeable polypropylene fiber is a disperse dyeable polypropylene for use in the textile industry.

CoolVisions® T-111 staple fibers are engineered for use in Murata air jet spinning applications.

CoolVisions® fibers offer the following advantages when used in textile applications:

- It has essentially the same properties as solution dyed polypropylene fibers with the added flexibility for design and fashion driven markets because it is dyeable using disperse dyes.
- AATCC 61-2A wash fastness can be achieved through the proper selection of dyes.
- It has a soft cottony hand, more so than solution dyed staple.
- It can be blended with wool, cotton, cellulosics or synthetic fibers.
- It can produce garments that are lightweight, comfortable, and breathable with excellent moisture management properties.

Dyeing and Finishing

Dyeing should be done using high energy disperse dyes at a temperature no higher than 130 °C



(120 °C preferred) for 45 minutes. Maximum finishing temperature is 140 °C (130 - 135 °C preferred). Recommendations for dyeing and finishing are provided in the Dyeing Guideline.

Applications

CoolVisions® is the industry's premier disperse dyeable polypropylene fiber which was created to address the needs of the manufacturer and the desires of the consumer.

CoolVisions® dyeable polypropylene fibers are used in textile applications where the properties of polypropylene are desired, but fashion colors are a consideration.

The inherent stain resistance, thermal insulation and moisture management properties, in addition to its durability, make CoolVisions® perfect for a wide range of applications.

CoolVisions® fiber is suitable for any lifestyle as it is "easy care, easy wear".

Fiber Properties

CoolVisions® dyeable polypropylene T-111 fiber is a white crimped fiber for Murata air jet spinning.

Typical fiber properties in the table overleaf are guidelines for the customer. Optimization of specific fiber properties is possible, giving the customers a chance to get a unique and exclusive fiber grade.

Product Delivery

CoolVisions® dyeable polypropylene T-111 staple for Murata air jet spinning is offered as a 1.2 dpf staple fiber. It is supplied in bales.

CoolVisions® is a registered trademark of FiberVisions, LP.



Advantages of CoolVisions® polypropylene fibers

CoolVisions® fibers have all the great advantages of polypropylene fibers over other fibers:

Density. The density of polypropylene is 40% lower than polyester, roughly 55% lower than cotton, and 30% lower than wool. This means that lighter weight fabrics can be made with excellent bulk and cover than from other fiber types.

Mechanical Properties. T-111 fiber has a toughness superior to most fibers which translates into more durable apparel products.

Colorfastness. When appropriate dyes are used, good AATCC 61-2A wash fastness (49°C) is achievable. Please refer to the dyeing guidelines for a list of approved dyes.

Comfortable. T-111 fiber for Murata air jet spinning applications produces soft yarns that result in fabrics with a soft hand and good drapeability. It also has excellent moisture transport properties to keep you cool when it is warm.

Typical Properties



FiberVisions®
T-111 Fiber

	Nom. Value	Property	Reference
 9 km	1.2	Titer (denier per filament)	ASTM D1577
	4.6	Tenacity (g/denier)	ASTM D3822
	25%	Elongation at break	ASTM D3822
	38	Fiber length (mm)	ASTM D5332
	140 - 150°C 162 °C	Softening point Melting point	As described in ASTM D276
	Adjustable	Crimp Frequency	ASTM D3937
	Adjustable	Finish level as weight %	Internal FV test

*All measurements are conducted under standard atmosphere according to ISO 554 (23°C/50% relative humidity).

Polyolefin fibers consist of 99% carbon and hydrogen. The remaining 1% consists of water and applied spin finish. The fiber bales are protected with polyolefin wrap and closed with polyester straps. The product and the packaging materials are suitable for recycling and combustion. Inhouse waste should be kept clean to facilitate direct recycling. In disposal of any waste, ensure that all applicable regulations are met.

Insulation. Polypropylene has the lowest thermal conductivity of all textile fibers. CoolVisions® fibers will keep you warm when it is cold.

Moisture regain. CoolVisions® fiber does not absorb water. The hydrophilic/hydrophobic properties of fabrics made from T-111 fiber can be engineered for specific end uses with topical finishes.

Resistance. CoolVisions® fiber is inert to acids, alkalis and other chemicals, including bleach. It is also 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 and fiber quality enhancements.

Request a trial for your next application!



www.cool-visions.com

FiberVisions
3700 Crestwood Parkway, Suite 900
Duluth, Georgia 30096
Tel.: +1 678 578 7240
Fax: +1 678 578 7276
email: sales.textile@fibervisions.com

FiberVisions a/s
Engdraget 22
DK-6800 Varde, Denmark
Tel.: +45 7994 2200
Fax: +45 7994 2201
e-mail: fibervisions@fibervisions.dk

FiberVisions Textile Products, Ltd.
No. 29 Heng Shan Road
Suzhou, China 215009
Tel.: +86 512 6823 1099
Fax: +86 512 6823 0021
email: sales.suzhou@fibervisions.com

www.fibervisions.com

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