

FiberVisions® HY-Comfort

The FiberVisions® HY-Comfort fiber has been developed to fulfil the future demands for softness **and** strength in absorbent products.

Nonwovens are very important elements in the design of disposable diapers and sanitary napkins and the performance requirements are constantly increasing.

FiberVisions® HY-Comfort is a development which points towards new generations of products. Manufacturers of carded, thermal bonded coverstock will experience a fiber with features which ensure a distinctively better, competitive nonwoven product:

- Excellent softness
- Broad bonding window
- Easy to process
- Good liquid transport properties
- Excellent nonwoven properties

The quality of the fibers is secured by highly skilled and qualified operators, a strict ISO 9001 certified quality assurance system, and very advanced fiber production facilities.

Advantages for Roll Goods Manufacturers and Converters

The manufacturers of nonwovens will experience benefits with respect to better processability due to a broad bonding window (up to 15-20°C) and high carding speed (up to 200 m/min.), while obtaining very good nonwoven tenacities.

For converters the well-known soft texture of carded, thermal bonded nonwovens is even enhanced, thus increasing the comfort for the diaper user.

Furthermore, HY-Comfort coverstocks have better uniformity, drapeability and bulkiness compared to spunbonded materials.

Nonwovens made from FiberVisions® HY-Comfort can easily be laminated to other materials (e.g. films) due to the broad bonding window.

A New Edge of Performance

Fine Fibers

FiberVisions® HY-Comfort are available in dtex from 1.3 to 10 dtex.

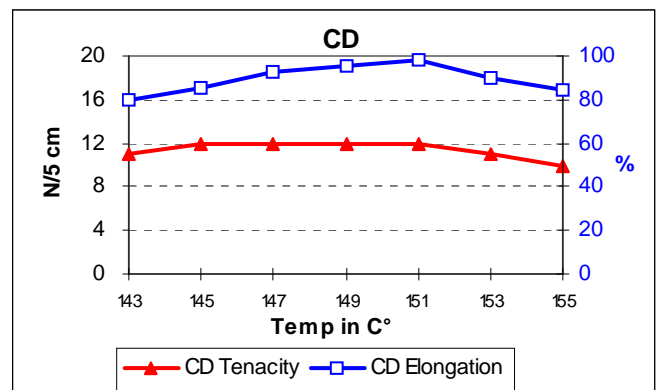
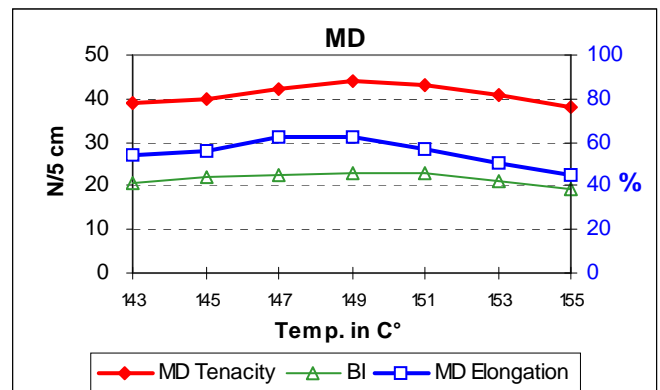
The fine fibers in 1.7 dtex can be used to improve the coverage of nonwovens, as the same grammage will increase the number of fibers per m² by approx. 30%, thereby improving the uniformity of the coverstock.

Fine fibers also improve the softness and drapeability of the fabrics.









Results from FiberVisions a/s Pilot Carding & Calendering Line










FiberVisions has obtained the following nonwovens data from tests on the carding & calendering line at a carding speed of 100 m/min.

(Typical data for a 20 g/m² product - based on 2.2 dtex fibers):



Typical Fiber Values and Nonwoven Properties

 FiberVisions® HY-Comfort			
	Nom. Value	Measure	Method
	1.3 and 4.4 dtex	The weight in grams of a fiber of 10 km length	Internal FV test
	1.7 - 2.1 cN/dtex	Bursting strength of the fiber	Internal FV test
	320 - 400%	Elongation at break	Internal FV test
	40, 50 and 60 mm	Fiber length (under a prescribed load)	Internal FV test
	100% PP 140 - 150°C 162 °C	Raw material: Softening point Melting point	
	Variable	Crimp frequency (KD) no. of crimps/10 cm	Internal FV test
	0.35%	Spin finish level as weight %	Internal FV test

 Typical Data obtained at FiberVisions Pilot Thermal Bonding Line			
	Nom. Value	Measure	Method
	All values refer to a 20 g/m ² nonwoven, produced under optimum conditions at 100 m/min.		
	18 - 24	Bonding Index, multiplying MD and CD tenacities	Formula
	31 - 45 N/5 cm	MD Tensile Strength	Internal FV test
	10 - 15 N/5 cm	CD Tensile Strength	Internal FV test
	50 - 100%	MD Elongation	Internal FV test
	90 - 140%	CD Elongation	Internal FV test
	< 3 sec	Strike through time	WPS 70.3
	<0.15 g	Rewet	WPS 80.10

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 foil 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. For further information contact your FiberVisions representative.

The FiberVisions® HY-Comfort is presently produced at the FiberVisions a/s plant in Denmark. HY-Comfort is a trademark of FiberVisions.

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