



Lenzing fibers for enhanced filter performance

Lenzing Viscose® and TENCEL® optimize mechanical properties, filtration efficiency and permeability of filtration products. Since TENCEL® fibrillates when refined, the resultant circular shaped micro-fibrils deliver increased life and enhanced performance in liquid and gas filtration.

Optimized characteristics of Lenzing fibers

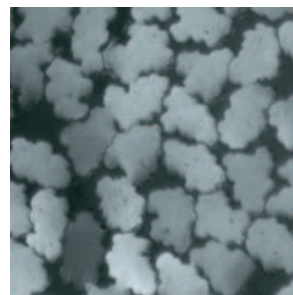
Lenzing offers a broad portfolio of man-made cellulosic fibers. This ranges from staple fiber grades between 20 mm and 100 mm to short cut lengths between 2 mm and 15 mm.

Lenzing Viscose® and TENCEL® staple fiber grades are well established in spunlaced or chemical bonded fabrics and in needle bonded felts to produce strong, flexible filter substrates.

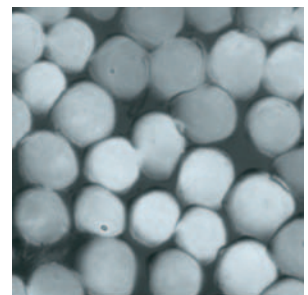
Refined TENCEL® generates sub-micron fibrils that improve mechanical properties and enhance the fine pore structure and filtration characteristics.

The non-melting fibers exhibit excellent solvent and oil resistance. Lenzing Viscose® and TENCEL® are naturally absorbent. This hydrophilicity facilitates the absorption of water droplets during the filtration of cooking oils.

The higher fiber modulus of TENCEL® maximizes fabric bulk, permeability and resilience. Beyond this, it minimizes wet collapse during filtration of aqueous liquids.



Lenzing Viscose®
fiber cross-sections



TENCEL® fiber cross-sections

Lenzing helps you to find the best blend for your application

Short cut TENCEL® fiber grades can be used in wet laid and paper substrates as either 100% TENCEL® or in blend with woodpulp, synthetic or inorganic fibers.

Blending refined TENCEL® fibers with woodpulp gives increased sheet thickness and a smooth paper surface. In combination with microglass fibers, TENCEL® imparts improved paper strength and integrity in a binder-free composition.





Filtration Products

	Tensile Index (Nm/g)	Tear Index (mN.m ² /g)
Microglass	5.1	5.5
Woodpulp	14.8	4.7
TENCEL®	10.7	16.0

Incorporating low levels of TENCEL® with pulp gives very similar improvements in tensile and tear strength to those obtained with short cut polyester, together with the additional advantage of maintaining a furnish of 100% biodegradable and flushable cellulose.

Control of degree of fibrillation and the resulting fine pore structure enables optimization of sheet filtration efficiency and pressure drop.

Lenzing Viscose® and TENCEL® fibers satisfy the requirements for FDA food contact approval (CFR 21 Sections 176.170 and 176.180) as well as German BgVV (36/1) approval for use in food contact applications.

Main application areas

Applications for TENCEL® filter papers include automotive filters (fuel & oil), industrial process liquid filters, medical filters, cooking oil, food and beverage filters and cigarette filter papers.



NaCl Aerosol Filtration as a Function of Refining 100% TENCEL® Paper, 60gsm

