



Dolanit[®] 12
for hot gas filtration

High-performance
homopolymer
acrylic fibres (PAN)



High Tenacity Fibre

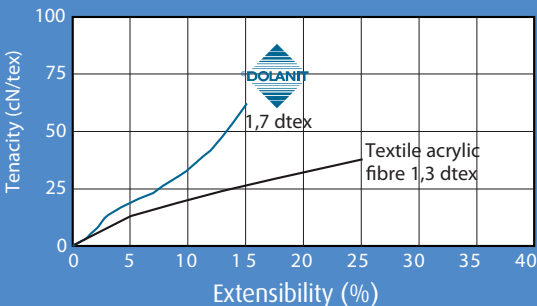
Dolanit is a homopolymer acrylic (PAN) fibre with high strength developed for technical applications. Dolanit® 12 is wet spun, the cross section is kidney shaped.

Compared to typical textile acrylic copolymer fibres Dolanit shows a much higher modulus and tenacity resulting in better temperature stability and chemical resistance.

Product Range and Dolanit® 12 Fibre Properties

Titre dtex	0,9	1,7	2,2	8,2
Staple length mm	40	50	60/80	80
Tenacity cN/tex	55 - 65	50 - 60	50 - 60	35 - 45
Elongation %	13 - 18	13 - 18	13 - 18	12 - 16
Density g/cm ³	1,18	1,18	1,18	1,18
Hot air at 180 °C, % shrinkage 5 min	1,5 - 2,5	1,5 - 2,5	1,5 - 2,5	1,5 - 2,5

Tenacity/Extensibility Performance





Heat Setting

Due to a special finish applied, Dolanit® 12 improves processability and reduces emissions during the heat setting process. During spinning, scrim weaving and needling the short term shrinkage potential is increased and should be controlled by heat setting the fabrics or needle felts.

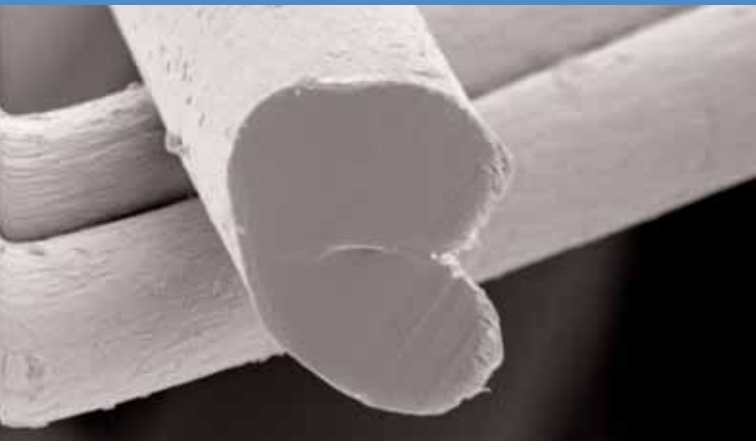
Dolanit® 12 has a 10 % higher tenacity compared to other PAN fibres. Due to a different molecular structure a higher heat setting temperature is recommended.

Key parameters for the heat setting process are temperature, time and tension. Heat setting should be carried out without tension to allow the material to relax.

On drum dryers contact time is approx. 20 sec at 200 degr. C. On a stenter frame the conditions depend on the processes before heat setting (e.g. scouring, finishing). On both systems the fan(s) of the dryer should run at a high speed to optimize heat setting.

World Wide Service

Manufactured by Dolan GmbH in Germany, Dolanit is distributed world wide by our network of offices and agents.





Thermal Stability

The higher molecular weight and the para-crystalline structure ensure a considerably higher temperature capability compared to conventional acrylic fibres. Continuous temperatures of up to 125°C with peaks of 140°C may be applied.

Dolanit fibres do not melt. The carbonization process starts at temperatures beyond 160°C.

Chemical Resistance

The chemical resistance of Dolanit is superior to other low cost fibres capable of operating a similar temperatures, such as polyester (PES). Excellent stability in alkaline as well as acidic conditions make Dolanit the preferred choice in applications where temperatures up to 125°C are applied. Dolanit is resistant against hydrolysis. After an autoclave treatment lasting 360h with saturated steam at a temperature of 130°C the fibres still display a relative residual tensile strength of 95%.

Suitability

Dolanit is the first choice for bag houses after coal fired boilers when temperatures up to 125°C are encountered. Besides their excellent stability against hydrolysis they are also resistant to SO₂ and O₂. Contact with alkaline dust layers does not affect Dolanit filter media.

Woven Fabrics

Besides applications of needle felt filter bags in pulse jet bag houses Dolanit® 12 PAN fibres are commonly used in power stations with reverse air or shaker bag house technology.



safe and environmental friendly

Quality, safety and protection of the environment are priorities in the running of our business. Dolan GmbH is certified to DIN EN ISO 9001:2000 and AQS.

Quality

Our quality management system has been certified since 1996, and has been continuously developed and improved since then. Our aim remains to implement effective processes that will allow us to meet the requirements of our customers in the most efficient manner. We are regularly audited by customers with excellent results, which offers further confirmation of the effectiveness of our quality systems.

Environment

The protection of the environment plays a central role at our site. We have a monitoring system which is certified by the authorities (AQS). Both waste-air and wastewater flows are monitored on a continuous basis. Regular benchmark comparisons carried out across Germany confirm the effectiveness of our organisation. We remain determined to optimise all facilities in order to protect the environment and to maintain these high standards.





DOLANIT - a fibre from DOLAN GmbH

Dolan GmbH is unique in its ability to offer integrated on site fibre processing alongside the production of acrylic fibres. This includes the production of technical short cut fibres and ground fibres for the composites market. The consistent high quality of our products and our extensive range of fibres guarantee the highest possible added value for our customers.

Contact

Dolan GmbH is your partner for acrylic speciality fibres with enhanced properties. We offer premium quality products with a high level of service and technology. Contact us for further information on Dolanit® 12. We are happy to offer you customised solutions for your specific fibre needs.

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