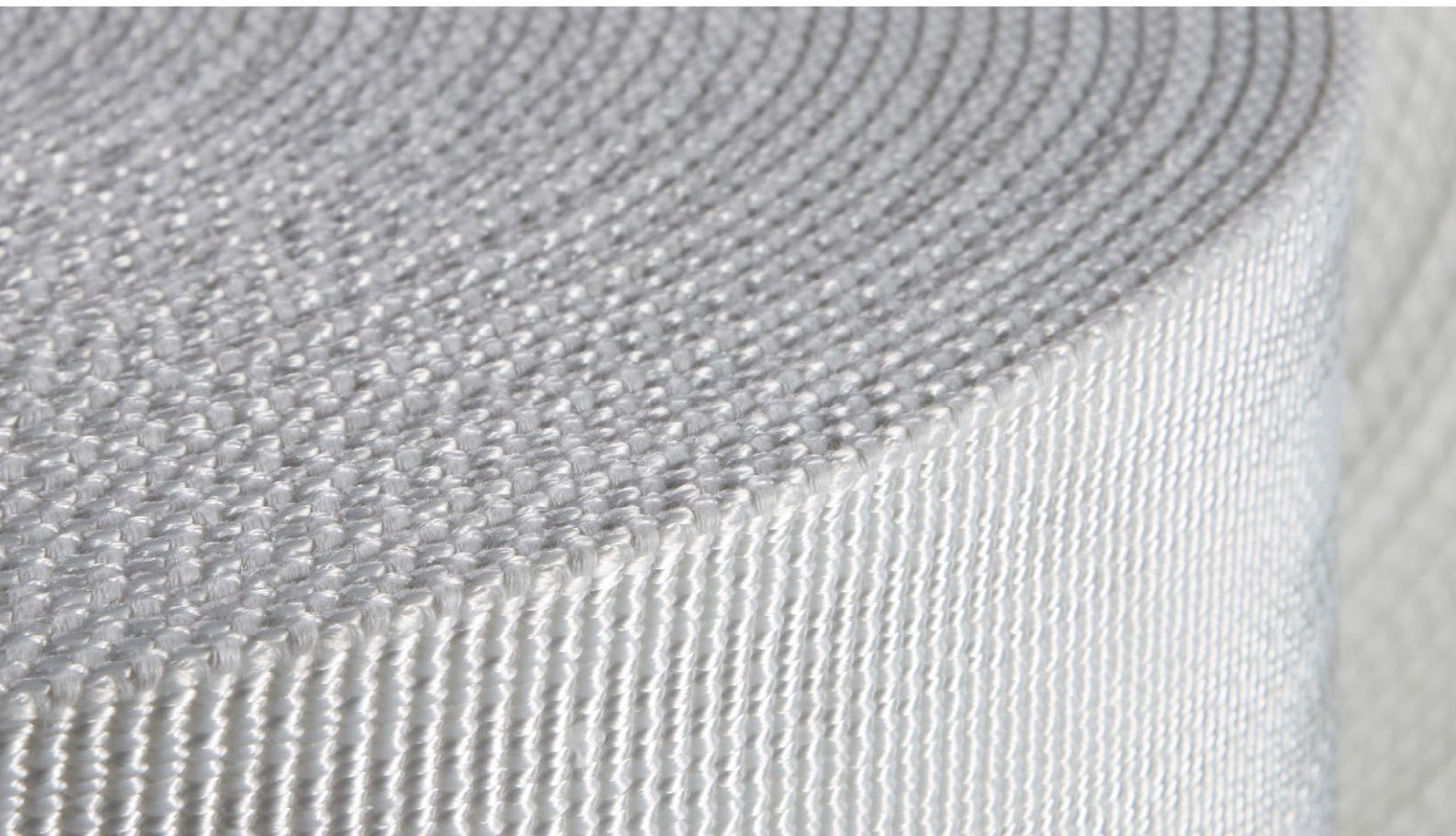


FLUITEX® FLUIDIZING FABRICS

The best solution for the transport and storage of powder bulk materials





FLUITEX® – SECTORS & AREAS OF APPLICATION

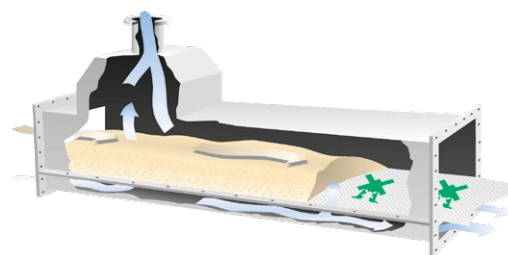
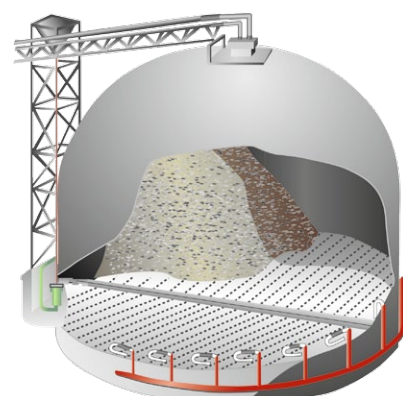
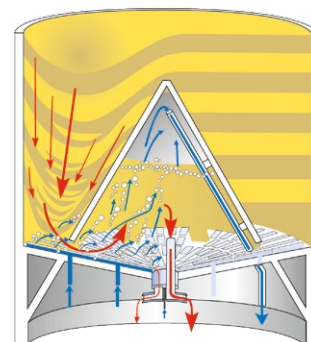
Mühlen Sohn FLUITEX® fluidizing fabrics are used for the transportation of powder or granulated bulk materials all over the world. There are virtually no limits to how they can be used. Our fabrics ensure fast, trouble-free air slide transportation, total discharge for silos, trucks, railway wagons and vessels, as well as optimal coating in fluidizing basins.

FIELDS OF APPLICATION

- Cement industry
- Lime and gypsum industry
- Alumina industry
- Coal-fired power plants
- Waste burning plants
- Food industry
- Chemical industry
- Pharmaceutical industry
- Fertilizer industry
- Powder coating

AREAS OF APPLICATION

- Pneumatic loading and discharging systems
- Air slides
- Storage and homogenization silos
- Fluidizing basins
- Discharging systems for all kinds of transport
(trucks – railway wagons – vessels – containers)



QUALITY

DURABILITY
WORLDWIDE EXPORT
TECHNOLOGY
MADE IN GERMANY

MULTIFILAMENT YARNS
FLEXIBILITY
RELIABILITY
TENSILE STRENGTH
CUT-TO-MEASURE

WEAR RESISTANCE
EXPERIENCE
KNOW-HOW

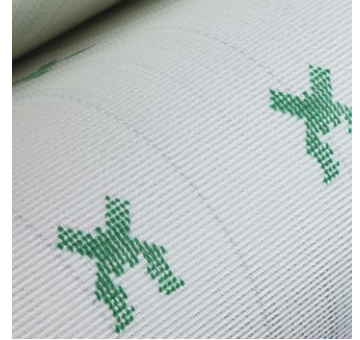
FLUITEX® – TRADITION & INNOVATION

Mühlen Sohn has been manufacturing FLUITEX® fluidizing fabrics for decades. Many years of experience, along with close collaboration with Original Equipment Manufacturers (OEM), have allowed us to align our fabrics with identified requirements. Weaving technology and choice of material are the key criteria for uniform, trouble-free bulk goods transport and fast, total discharge.

An important aspect of this is the constant, even air permeability provided by our highly developed weaving technology. Our quality system and DIN EN ISO 9001:2008 certification guarantee that our fabrics comply with the required specifications, meter after meter.

Our use of high quality yarns and our special weaving technology minimize abrasion, with an extremely positive impact on the fabric's lifetime. As a result, fabrics need changing less often and system downtime is heavily reduced.

Our broad product portfolio offers solutions for all bulk materials transportation, storage, homogenization or discharge applications. We also produce meta-aramid or para-aramid fiber fabrics suitable for high-temperature applications and acid- or lye-influenced environments. And we have developed a polyester fabric with woven-in anti-static fibers to prevent static charging. Moreover we can offer you thermofixing of our fabrics for utmost dimension stability.



MÜHLEN SOHN – SINCE 1880

Mühlen Sohn has been making technical advances in product development for well over a century. Today we develop, produce and sell high-quality heavy-duty fabrics for technically demanding applications. We see ourselves primarily as a manufacturer but also as a skilled and innovative development and service OEM partner in mechanical and plant engineering.

Our combination of tradition and innovation is the key to our success. We have been bringing new impulse to our sector ever since the firm was first established. In today's highly competitive mechanical and plant engineering market this makes us not only a constant presence but synonymous with quality and technology leadership.

FLUITEX® – CUSTOMER-FOCUSED PRODUCTION

For decades, leading plant manufacturers have been putting their trust in Mühlen Sohn's highly customer-focused production. We deliver outstanding, efficient solutions for almost any customer requirement, with the mark of highest quality – "Made in Germany." Our patented weaving technology, reliability, and comprehensive service offering guarantee you a tailor-made product that meets all of your needs. We are constantly feeding back practical experience and development results into our products and production processes.

WEAVING TECHNOLOGY

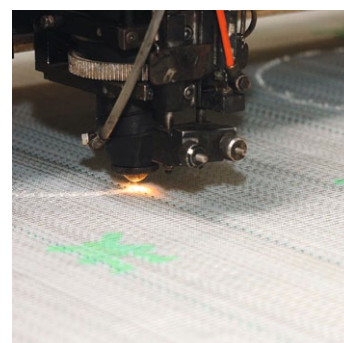
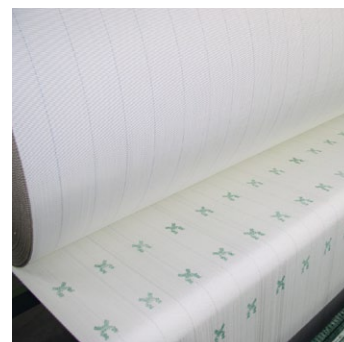
We have combined decades of production experience in technical heavy-duty fabrics for pneumatic storage and transport with the ongoing development of our manufacturing facilities, to achieve optimum results. The quality of our fabrics is consistently dependable; and they are tailored to the plant manufacturer's specifications to provide the best possible outcome for our customers. Thanks to modern looms, we can now produce widths of up to 3,000 mm.

LASERS

Using computer-controlled laser-cutting machines, we can maintain a high degree of accuracy and repeatability in series components.

CUT-TO-MEASURE MANUFACTURING

We can supply fluidizing fabrics cut to customer specifications or customer drawings, and equipped with suitable installation holes.



FLUITEX® – TO YOUR ADVANTAGE

- Long lifetime
- Low/no downtime
- High abrasion resistance
- Even air permeability
- Smooth surface
- No banana effect
- Energy efficient
- Rapid/total discharge
- Low maintenance costs
- Dimension stability
- Self cleaning
- High tensile strength
- No caking
- Highest productivity

PRODUCT OVERVIEW & TECHNICAL FEATURES – FLUITEX® E & EX

Prod. No.	Product Name	Material	Thickness DIN 53855	Air permeability at 400 m³/m²/h	Weight³	Operating temperature range	Max. width²	Tensile strength⁵	
Tolerances			± 0.3 mm	± 15 %	± 6 %		± 1 %	± 15 %	± 15 %
FLUITEX® E									
201500021	FLUITEX® E 150/3	Polyester (PES)	3 mm	150 mmWG⁴	2,200 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	4,300 N/cm	1,300 N/cm
203000031	FLUITEX® E 350/4	Polyester (PES)	4 mm	350 mmWG⁴	2,900 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	4,200 N/cm	2,500 N/cm
208000031	FLUITEX® E 800/4			800 mmWG⁴	2,950 g/m²				
212000031	FLUITEX® E 1200/4			1,200 mmWG⁴	3,200 g/m²				
216000031	FLUITEX® E 1600/4			1,600 mmWG⁴	3,300 g/m²				
201000041	FLUITEX® E 150/5	Polyester (PES)	5 mm	150 mmWG⁴	3,400 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	6,200 N/cm	4,200 N/cm
203000041	FLUITEX® E 350/5			350 mmWG⁴	3,350 g/m²				
208000041	FLUITEX® E 800/5			800 mmWG⁴	3,500 g/m²				
212000041	FLUITEX® E 1200/5			1,200 mmWG⁴	3,700 g/m²				
216000041	FLUITEX® E 1600/5			1,600 mmWG⁴	4,150 g/m²				
203000051	FLUITEX® E 350/6	Polyester (PES)	6 mm	350 mmWG⁴	4,350 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	7,000 N/cm	5,000 N/cm
208000051	FLUITEX® E 800/6			800 mmWG⁴	4,500 g/m²				
212000051	FLUITEX® E 1200/6			1,200 mmWG⁴	4,600 g/m²				
216000051	FLUITEX® E 1600/6¹			1,600 mmWG⁴	4,700 g/m²				
203000081	FLUITEX® E 350/8	Polyester (PES)	8 mm	350 mmWG⁴ (± 20 %)⁴	5,350 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	9,000 N/cm	7,400 N/cm
208000081	FLUITEX® E 800/8			800 mmWG⁴ (± 20 %)⁴	5,500 g/m²				
212000081	FLUITEX® E 1200/8¹			1,200 mmWG⁴ (± 20 %)⁴	5,600 g/m²				
216000081	FLUITEX® E 1600/8¹			1,600 mmWG⁴ (± 20 %)⁴	5,700 g/m²				
Anti-static FLUITEX® EX									
203001041	FLUITEX® EX 350/5	Polyester with anti-static fiber	5 mm	350 mmWG⁴	3,650 g/m²	–60 °C – +150 °C Temporary: +200 °C	2,400 mm	7,000 N/cm	3,200 N/cm
208001041	FLUITEX® EX 800/5			800 mmWG⁴	3,900 g/m²				
FLUITEX® PES									
207001010	FLUITEX® PES 700-1/T	Polyester (PES)	0.6 mm	625 mmWG⁴	600 g/m²	–60 °C – +150 °C Temporary: +200 °C	1,710 mm	1,200 N/cm	560 N/cm
Prod. No.	Product name	Material		Diameter	Weight³	Operating temperature range	Air per- meability	Burst pressure	Tensile strength⁵
30800106	FLUITEX® Silo hose	Polyester, coated with yellow polyurethane on one side		(inner Ø): 71 mm (outer Ø): 73 mm Wall thickness: 1 mm (further Ø on request)	210 g/m²	–30° C – +45° C Temporary: +80° C	according to data sheet	> 50 bar	3 000 kg

¹ No standard product / made to order² Cutting tolerance + 0.5 to 1% – special sizes and extra-wide on request³ Measured at room temperature⁴ 1 mmWG = 10 N/m² = 10 Pa⁵ Tensile strength refers to 1 cm width of the fabric and is calculated from the yarn strength

PRODUCT PORTFOLIO

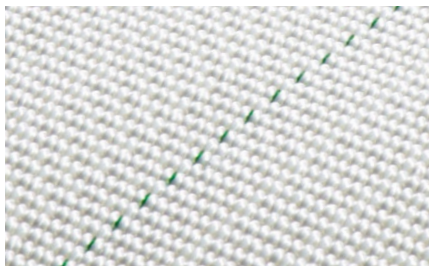


FLUITEX® E 150

150 mm water gauge

Thicknesses: 3, 5 mm

Without tracer thread

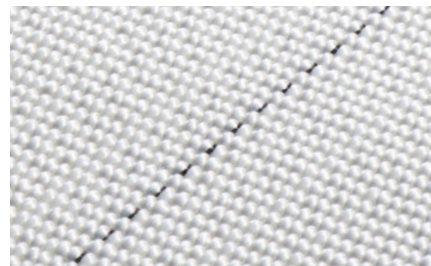


FLUITEX® E 350

350 mm water gauge

Thicknesses: 4, 5, 6, 8 mm

Green tracer thread

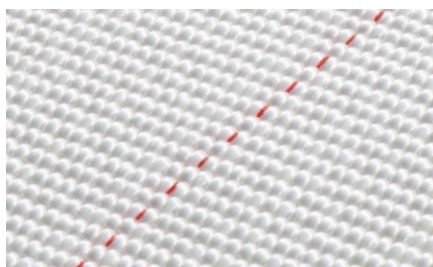


FLUITEX® E 800

800 mm water gauge

Thicknesses: 4, 5, 6, 8 mm

Black tracer thread

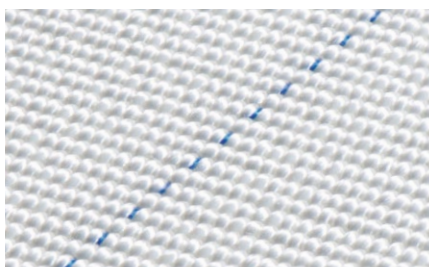


FLUITEX® E 1200

1,200 mm water gauge

Thicknesses: 4, 5, 6, 8 mm

Red tracer thread

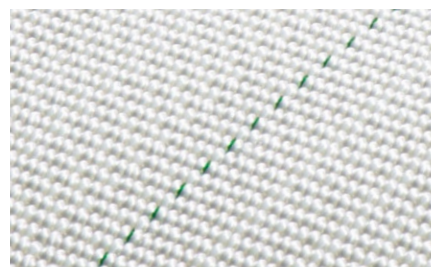


FLUITEX® E 1600

1,600 mm water gauge

Thicknesses: 4, 5, 6, 8 mm

Blue tracer thread



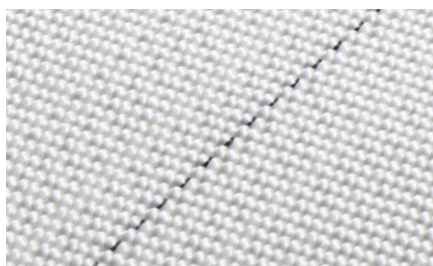
FLUITEX® EX 350

Anti-static fabric

350 mm water gauge

Thickness: 5 mm

Green tracer thread



FLUITEX® EX 800

Anti-static fabric

800 mm water gauge

Thickness: 5 mm

Black tracer thread



FLUITEX® PES 700-1/T

Very thin polyester fabric

Thickness: 0.6 mm



FLUITEX® SILO HOSE

71 mm internal diameter

Wall thickness: 1 mm

PRODUCT RANGE – CONES & DISCS



DISC



DISCHARGE CONE
with anti-collapse ring



DISCHARGE CONE
with resin flange

We can produce all cone versions to customer specifications – with or without anti-collapse ring, rubber rings, resin flanges or seals.



PRODUCT OVERVIEW & TECHNICAL FEATURES – FLUITEX® AN & AD

Prod. No.	Product name	Material	Thickness DIN 53855	Air permeability at 400 m³/m²/h	Weight³	Operating temperature range	Max. width²	Tensile strength⁵	
Tolerances			± 0.3 mm	± 15%	± 6%		± 1%	± 15%	± 15%
Heat- and acid-resistant FLUITEX® AD									
203003031	FLUITEX® AD 350/4¹	Para-aramid (e. g. Kevlar/ Twaron)	4 mm	350 mmWG (± 20 %)⁴	2,700 g/m²	-60 °C – +250 °C Temporary: +350 °C	2,400 mm	3,800 N/cm	2,000 N/cm
208003031	FLUITEX® AD 800/4			800 mmWG (± 20 %)⁴	2,900 g/m²				
203003041	FLUITEX® AD 350/5		5 mm	350 mmWG (± 20 %)⁴	3,250 g/m²				4,000 N/cm
208003041	FLUITEX® AD 800/5			800 mmWG (± 20 %)⁴	3,500 g/m²				
Heat- and acid-resistant FLUITEX® AN									
203002031	FLUITEX® AN 350/4	Meta-aramid (e. g. Nomex/ Conex)	4 mm	350 mmWG (± 20 %)⁴	2,750 g/m²	-60 °C – +250 °C Temporary: +300 °C	2,400 mm	3,800 N/cm	2,000 N/cm
208002031	FLUITEX® AN 800/4			800 mmWG (± 20 %)⁴	3,000 g/m²				
203002041	FLUITEX® AN 350/5		5 mm	350 mmWG (± 20 %)⁴	3,200 g/m²				4,000 N/cm
208002041	FLUITEX® AN 800/5			800 mmWG (± 20 %)⁴	3,350 g/m²				

FLUITEX® AD fabrics are highly heat-resistant and can even withstand temperatures of up to 350 °C for short periods of time. Our AD fabric is also extremely cut-resistant, providing maximum service life under extreme conditions and with very sharp-edged materials.

FLUITEX® AN fabrics are highly resistant to temperature as well as to acids and lyes, which makes them the best solution for high chemical exposure, and for temperatures of up to 250 °C.

¹ No standard product / made to order

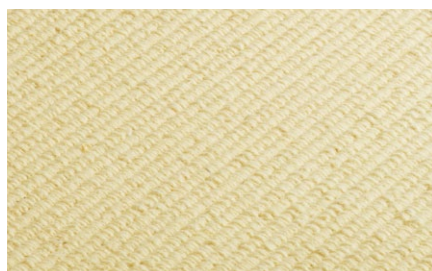
² Cutting tolerance + 0.5 to 1% – special sizes and extra-wide on request

³ Measured at room temperature

⁴ 1 mmWG = 10 N/m² = 10 Pa

⁵ Tensile strength refers to 1 cm width of the fabric and is calculated from the yarn strength

FLUITEX® AD



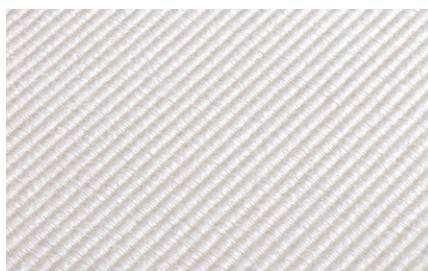
FLUITEX® AD

Para-aramid fabric

350 and 800 mm water gauge

Thicknesses: 4, 5 mm

FLUITEX® AN



FLUITEX® AN

Meta-aramid fabric

350 and 800 mm water gauge

Thicknesses: 4, 5 mm

TEST RESULTS – ABRASION TEST

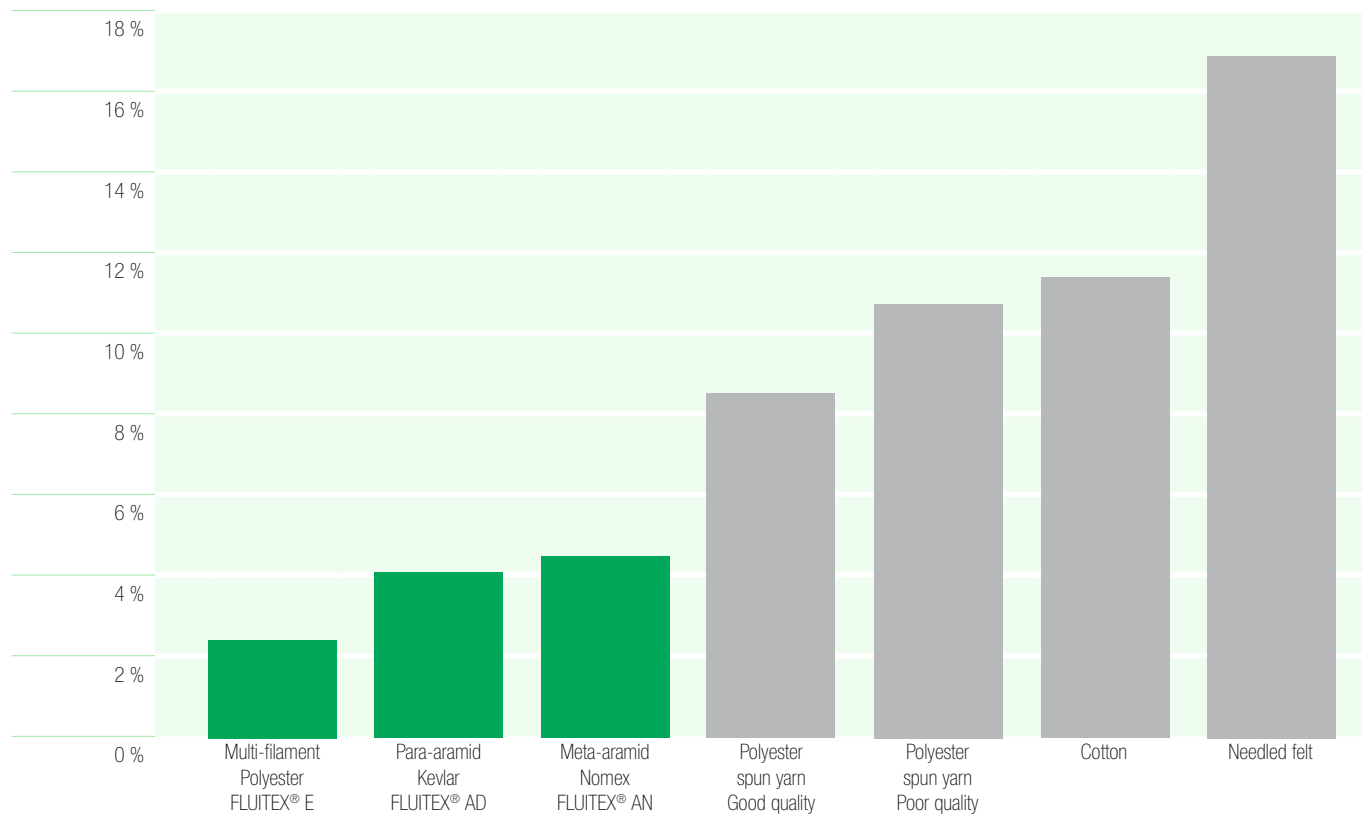
How a fabric wears is a measure of its robustness. Abrasion is a clear indication of lifetime when comparing different yarns.

Implementation conditions:

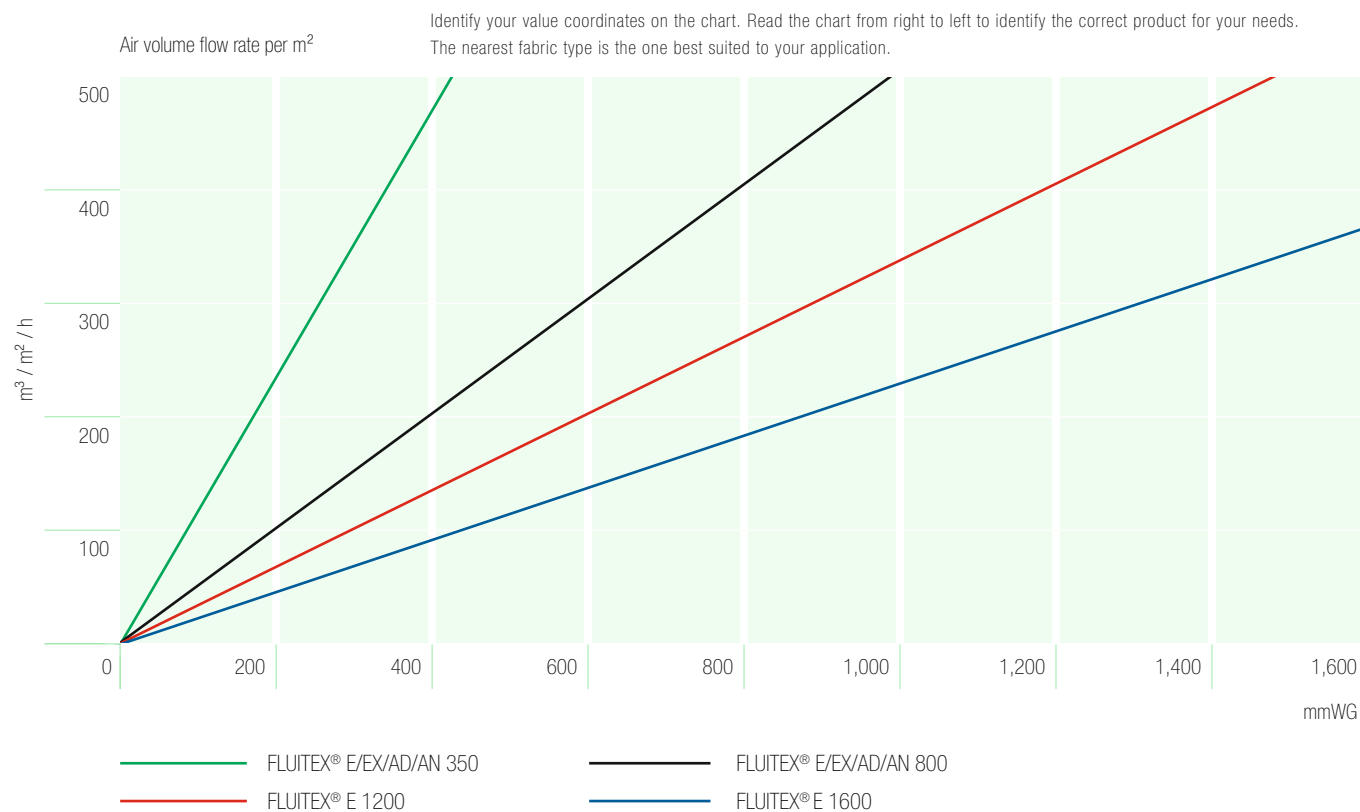
Textile abrasion testing in accordance with DIN EN ISO 5470 Part 1 using Taber Abrader.

Load	2.2 kp
Abrasion agent	Abrasion rolls
Number of rubs	1,000
Fabric thickness	5.0 mm
Temperature conditions	20 °C (room temperature)

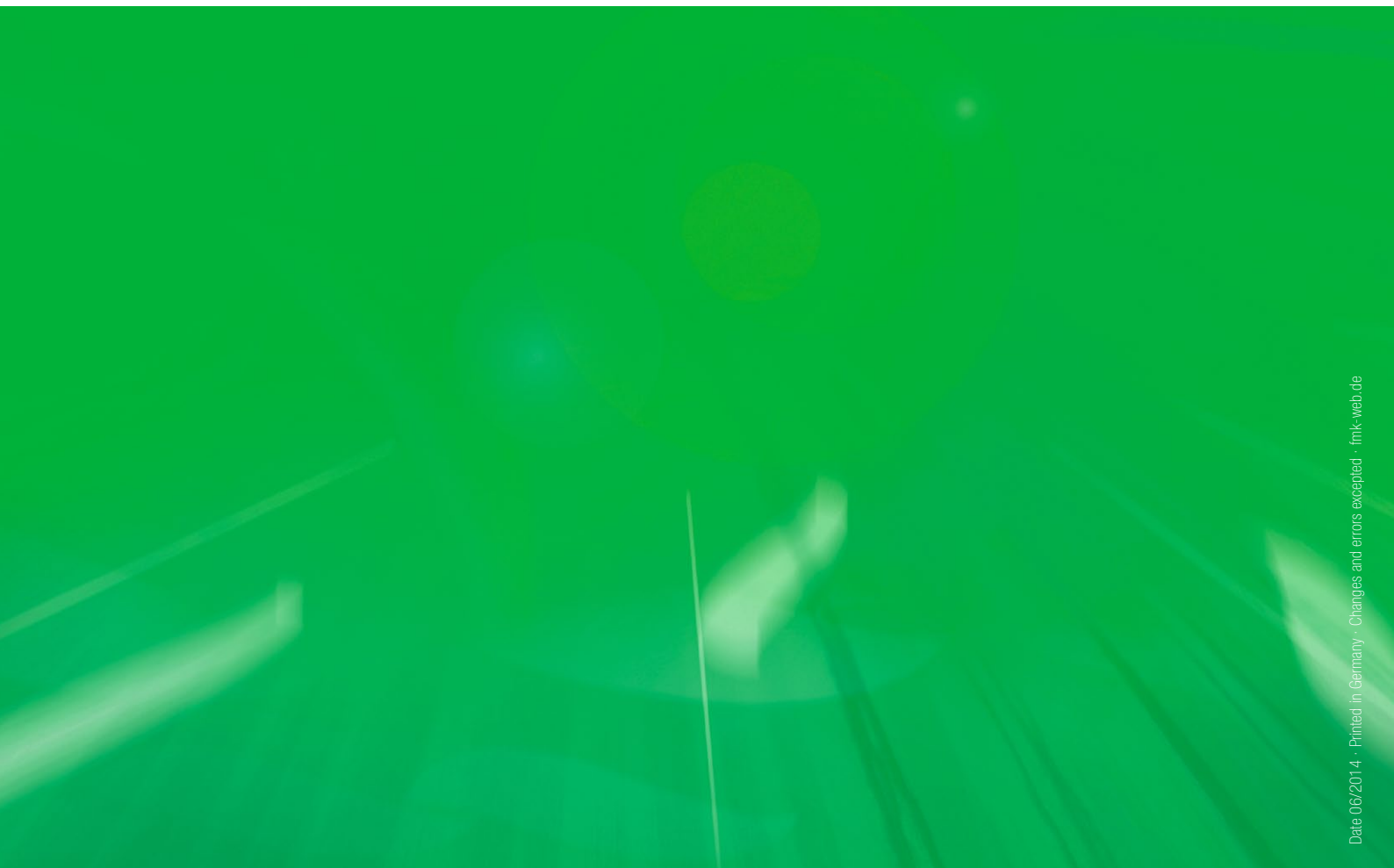
ABRASION RESISTANCE – RELATIVE LOSS OF WEIGHT/THICKNESS [%]



AIR PERMEABILITIES



PROPERTIES	YOUR ADVANTAGES
Smooth surface	Prevents abrasion No attraction of moisture - no culture of fungi, bacteria and rot No residue formation - no baking Strong self-cleaning effect Trouble-free operation, complete discharge
Special weaving technology	Prevents abrasion Even air permeability Strong self-cleaning effect - no baking No pressure loss during lifetime Ideal mixing / fluidizing
Constant air permeability	Permanent material flow without interruptions Complete discharge without residues Ideal mixing / fluidizing
High tensile strength	Dimensionally stable fabric - no elongation No banana effect
RESULT	
Highest productivity ▪ High energy efficiency ▪ Long lifetime ▪ Reduced maintenance costs	



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