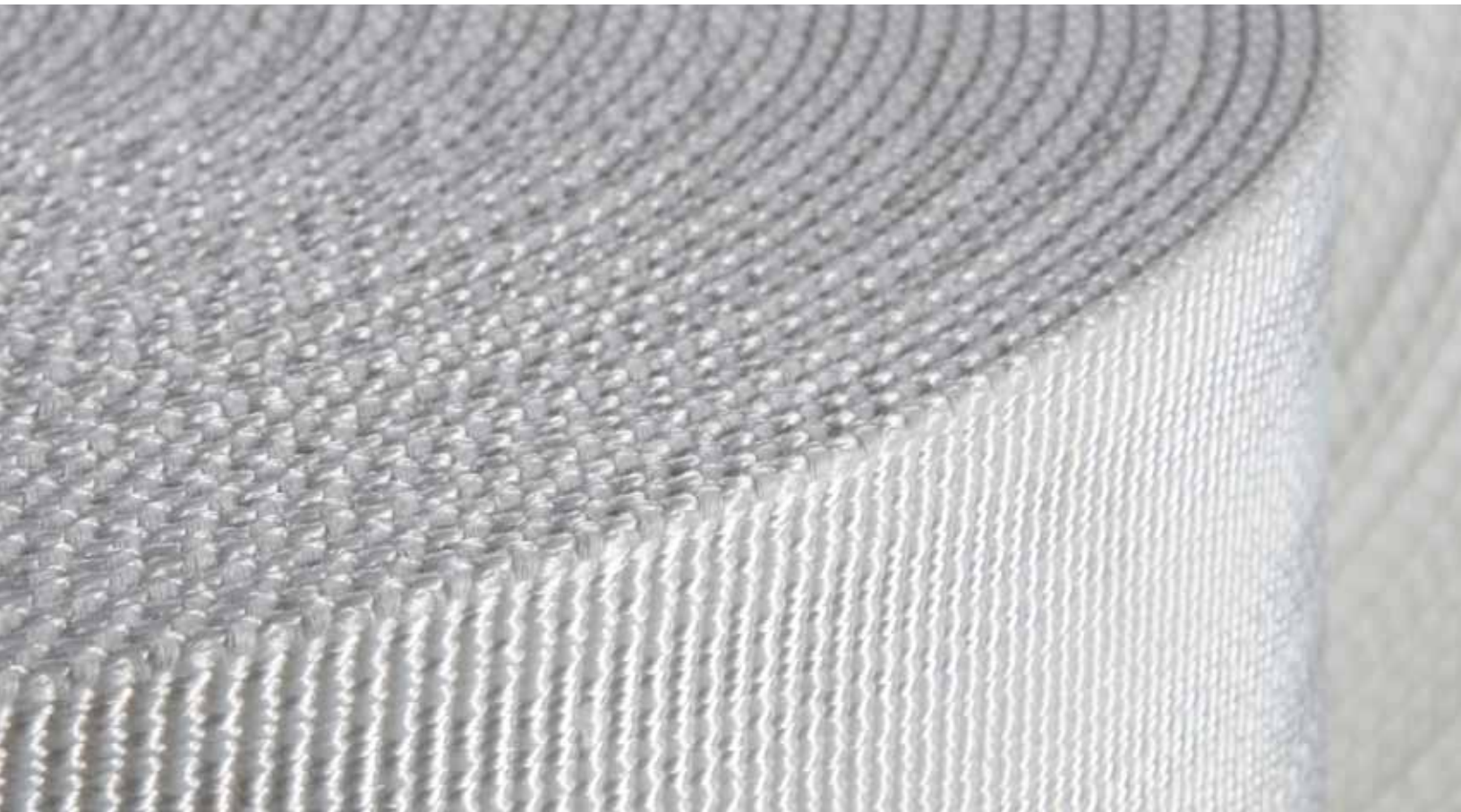


## FLUITEX® FLUIDIZING FABRICS

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





## FLUITEX® – SECTORS & AREAS OF APPLICATION

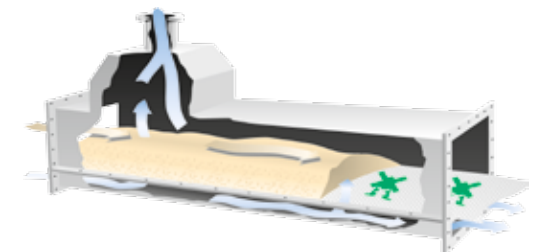
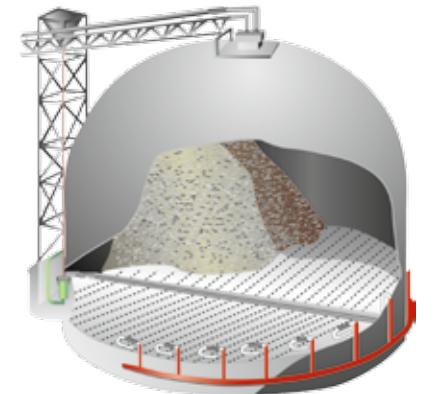
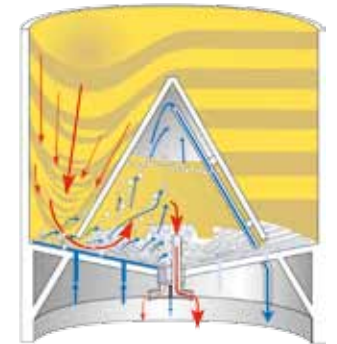
Mühlen Sohn FLUITEX® fluidizing fabrics are used for the transportation of powder or granulated bulk materials all over the world. There are virtually no limits to how they can be used. Our fabrics ensure fast, trouble-free air slide transportation, total discharge for silos, trucks, railway wagons and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



**DURABILITY**  
**WORLDWIDE EXPORT**  
**TECHNOLOGY**  
**QUALITY**  
**MADE IN GERMANY**  
**TENSILE STRENGTH**  
**CUT-TO-MEASURE**

**WEAR RESISTANCE**  
**MULTIFILAMENT YARNS**  
**FLEXIBILITY**  
**EXPERIENCE**  
**KNOW-HOW**  
**RELIABILITY**

## 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 minimizes abrasion, with an extremely positive impact on fabric lifetimes. 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.



## 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 118 inches.

### 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 custom drawings, and ready with suitable installation holes.



## 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® – 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 22 ft³ / (ft² x min.)	Weight <sup>3</sup>	Operating temperature range	Max. width <sup>2</sup>	Tensile strength <sup>5</sup>	
								Warp	Weft
<b>Tolerances</b>			± 0.012"	± 15%	± 6%		± 1%	± 15%	± 15%
<b>FLUITEX® E</b>									
201500021	<b>FLUITEX® E 150/3</b>	Polyester (PES)	0.12"	0.21 PSI <sup>4</sup>	0.45 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	3,550 lbs PIW	685 lbs PIW
203000031	<b>FLUITEX® E 350/4</b>	Polyester (PES)	0.15"	0.50 PSI <sup>4</sup>	0.59 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	2,400 lbs PIW	1,450 lbs PIW
208000031	<b>FLUITEX® E 800/4</b>			1.14 PSI <sup>4</sup>	0.60 lbs/ft <sup>2</sup>				
212000031	<b>FLUITEX® E 1200/4</b>			1.71 PSI <sup>4</sup>	0.66 lbs/ft <sup>2</sup>				
216000031	<b>FLUITEX® E 1600/4</b>			2.28 PSI <sup>4</sup>	0.68 lbs/ft <sup>2</sup>				
201000041	<b>FLUITEX® E 150/5</b>	Polyester (PES)	0.19"	0.21 PSI <sup>4</sup>	0.70 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	3,550 lbs PIW	2,350 lbs PIW
203000041	<b>FLUITEX® E 350/5</b>			0.50 PSI <sup>4</sup>	0.69 lbs/ft <sup>2</sup>				
208000041	<b>FLUITEX® E 800/5</b>			1.14 PSI <sup>4</sup>	0.72 lbs/ft <sup>2</sup>				
212000041	<b>FLUITEX® E 1200/5</b>			1.71 PSI <sup>4</sup>	0.76 lbs/ft <sup>2</sup>				
216000041	<b>FLUITEX® E 1600/5</b>	Polyester (PES)	0.24"	2.28 PSI <sup>4</sup>	0.85 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	4,000 lbs PIW	2,900 lbs PIW
203000051	<b>FLUITEX® E 350/6</b>			0.50 PSI <sup>4</sup>	0.89 lbs/ft <sup>2</sup>				
208000051	<b>FLUITEX® E 800/6</b>			1.14 PSI <sup>4</sup>	0.92 lbs/ft <sup>2</sup>				
212000051	<b>FLUITEX® E 1200/6</b>			1.71 PSI <sup>4</sup>	0.94 lbs/ft <sup>2</sup>				
216000051	<b>FLUITEX® E 1600/6</b>	Polyester (PES)	0.31"	2.28 PSI <sup>4</sup>	0.96 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	5,200 lbs PIW	4,250 lbs PIW
203000081	<b>FLUITEX® E 350/8</b>			0.50 PSI <sup>4</sup> (± 20%) <sup>4</sup>	1.10 lbs/ft <sup>2</sup>				
208000081	<b>FLUITEX® E 800/8</b>			1.14 PSI <sup>4</sup> (± 20%) <sup>4</sup>	1.13 lbs/ft <sup>2</sup>				
212000081	<b>FLUITEX® E 1200/8'</b>			1.71 PSI <sup>4</sup> (± 20%) <sup>4</sup>	1.15 lbs/ft <sup>2</sup>				
216000081	<b>FLUITEX® E 1600/8'</b>	2.28 PSI <sup>4</sup> (± 20%) <sup>4</sup>	1.17 lbs/ft <sup>2</sup>						
<b>Anti-static FLUITEX® EX</b>									
203001041	<b>FLUITEX® EX 350/5</b>	Polyester with anti-static fiber	0.19"	0.50 PSI <sup>4</sup>	0.75 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	94.5"	4,000 lbs PIW	1,830 lbs PIW
208001041	<b>FLUITEX® EX 800/5</b>			1.14 PSI <sup>4</sup>	0.80 lbs/ft <sup>2</sup>				
<b>FLUITEX® PES</b>									
207001010	<b>FLUITEX® PES 700-1/T</b>	Polyester (PES)	0.02"	0.89 PSI <sup>4</sup>	0.12 lbs/ft <sup>2</sup>	-76 °F – +302 °F Temporary: +392 °F	67"	3,430 lbs PIW	1,600 lbs PIW

Prod. No.	Product name	Material	Diameter	Weight <sup>3</sup>	Operating temperature range	Air per- meability	Burst pressure	Tensile strength <sup>5</sup>
30800106	<b>FLUITEX® Silo hose</b>	Polyester, coated with yellow polyurethane on one side	(inner Ø): 2.80" (outer Ø): 2.87" Wall thickness: 0.04" (further Ø on request)	0.04 lbs/ft <sup>2</sup>	-22° F – +113° F Temporary: +176° F	0.45 cfm	> 725 PSI	6,600 lbs

<sup>1</sup> No standard product / made to order

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

<sup>3</sup> Measured at room temperature

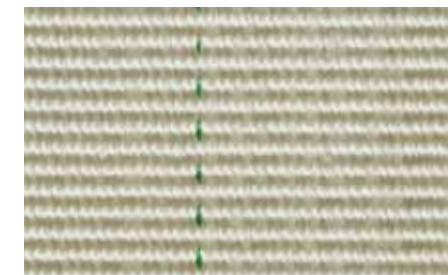
<sup>4</sup> 1 PSI = 68.9hPa = 703 mmWG

<sup>5</sup> Tensile strength refers to 1 inch width of the fabric and is calculated from the yarn strength

## PRODUCT PORTFOLIO



**FLUITEX® E 150**  
0.21psi@22ft3/ft2/min  
Thickness: 0.12", 0.19"  
Without tracer thread



**FLUITEX® E 350**  
0.50psi@22ft3/ft2/min  
Thickness: 0.15", 0.19", 0.24", 0.31"  
Green tracer thread



**FLUITEX® E 800**  
1.14psi@22ft3/ft2/min  
Thickness: 0.15", 0.19", 0.24", 0.31"  
Black tracer thread



**FLUITEX® E 1200**  
1.71psi@22ft3/ft2/min  
Thickness: 0.15", 0.19", 0.24", 0.31"  
Red tracer thread



**FLUITEX® E 1600**  
2.28psi@22ft3/ft2/min  
Thickness: 0.15", 0.19", 0.24", 0.31"  
Blue tracer thread



**FLUITEX® EX 350**  
Anti-static fabric  
0.50psi@22ft3/ft2/min  
Thickness: 0.19"  
Green tracer thread



**FLUITEX® EX 800**  
Anti-static fabric  
1.14psi@22ft3/ft2/min  
Thickness: 0.19"  
Black tracer thread



**FLUITEX® PES 700-1/T**  
Very thin polyester fabric  
0.89psi@22ft3/ft2/min  
Thickness: 0.02"



**FLUITEX® SILO HOSE**  
ID: 2.80"  
OD: 2.87"  
Wall Thickness: 0.04"

## 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 22 ft³ / (ft² x min.)	Weight <sup>3</sup>	Operating temperature range	Max. width <sup>2</sup>	Tensile strength <sup>5</sup>	
								Warp	Weft
<b>Tolerances</b>									
			± 0.3 mm	± 15%	± 6%		± 1%	± 15%	± 15%
<b>Heat- and acid-resistant FLUITEX® AD</b>									
203003031	<b>FLUITEX® AD 350/4<sup>1</sup></b>	Para-aramid (e. g. Kevlar/ Twaron)	0.15"	0.50 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.55 lbs/ft <sup>2</sup>	-76 °F – +482 °F Temporary: +662 °F	94.5"	2,200 lbs PIW	1,150 lbs PIW
208003031	<b>FLUITEX® AD 800/4</b>		1.14 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.60 lbs/ft <sup>2</sup>	2,300 lbs PIW				
203003041	<b>FLUITEX® AD 350/5</b>		0.19"	0.50 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.67 lbs/ft <sup>2</sup>				2,300 lbs PIW
208003041	<b>FLUITEX® AD 800/5</b>		1.14 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.72 lbs/ft <sup>2</sup>					
<b>Heat- and acid-resistant FLUITEX® AN</b>									
203002031	<b>FLUITEX® AN 350/4</b>	Meta-aramid (e. g. Conex/ Nomex)	0.15"	0.50 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.56 lbs/ft <sup>2</sup>	-76 °F – +482 °F Temporary: +572 °F	94.5"	2,200 lbs PIW	1,150 lbs PIW
208002031	<b>FLUITEX® AN 800/4</b>		1.14 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.61 lbs/ft <sup>2</sup>	2,300 lbs PIW				
203002041	<b>FLUITEX® AN 350/5</b>		0.19"	0.50 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.66 lbs/ft <sup>2</sup>				2,300 lbs PIW
208002041	<b>FLUITEX® AN 800/5</b>		1.14 PSI <sup>4</sup> (± 20%) <sup>4</sup>	0.69 lbs/ft <sup>2</sup>					

FLUITEX® AD fabrics are highly heat-resistant and can even withstand temperatures of up to 662 °F 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 482 °F.

<sup>1</sup> No standard product / made to order

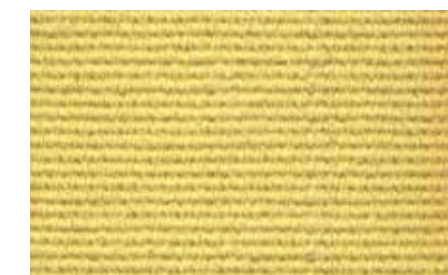
<sup>2</sup> Cutting tolerance + 0.5 to 1% – special sizes and extra-wide on request

<sup>3</sup> Measured at room temperature

<sup>4</sup> 1 PSI = 68.9hPa = 703 mmWG

<sup>5</sup> Tensile strength refers to 1 inch width of the fabric and is calculated from the yarn strength

### FLUITEX® AD



#### FLUITEX® AD

Para-aramid fabric  
0.50 and 1.14psi@22ft3/ft2/min  
Thickness: 0.15", 0.19"

### FLUITEX® AN



#### FLUITEX® AN

Meta-aramid fabric  
0.50 and 1.14psi@22ft3/ft2/min  
Thickness: 0.15", 0.19"

## TEST RESULTS – ABRASION TEST

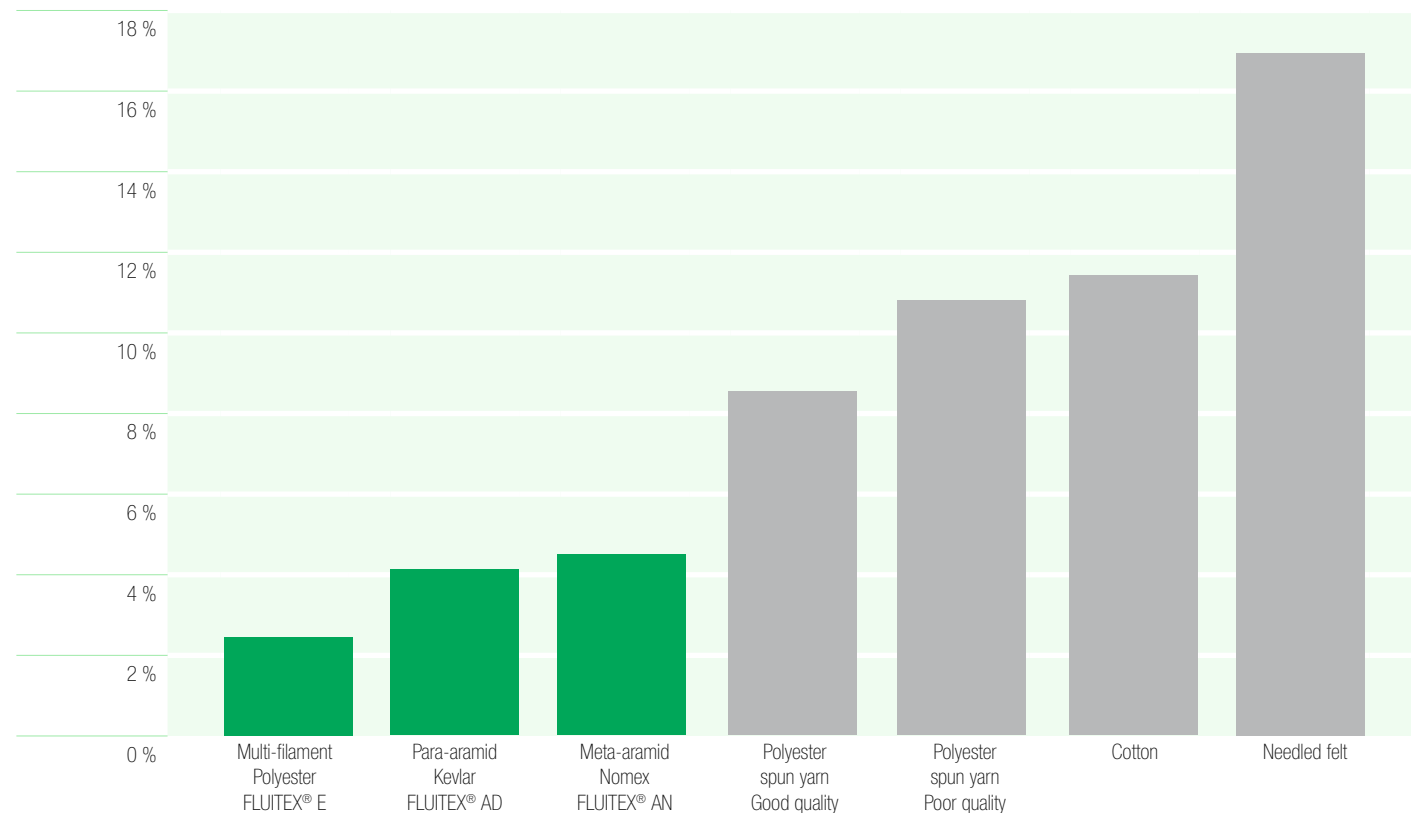
How a fabric wears is a measure of its robustness. Abrasion is a clear indication of lifetime when comparing different yarns.

### Implementation conditions:

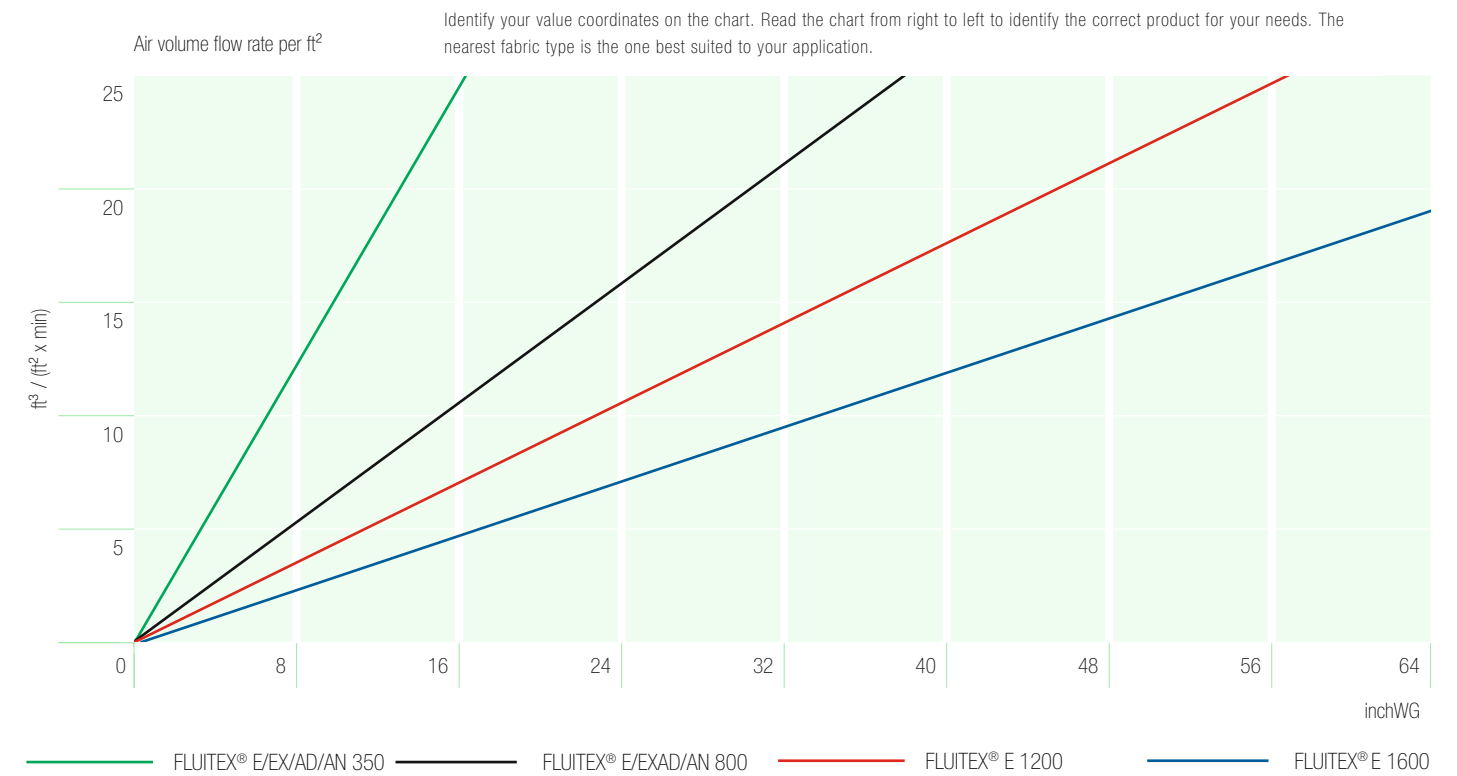
Textile abrasion testing in accordance with DIN EN ISO 5470 Part 1 using the Taber Abrader.

Load	2.2 kp
Abrasion agent	Abrasion rolls
Number of rubs	1,000
Fabric thickness	0.19"
Temperature conditions	68 °F (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
<b>RESULT</b>	
Highest productivity ▪ High energy efficiency ▪ Long lifetime ▪ Reduced maintenance costs	

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**MÜHLEN SOHN** 