

M-Z

Endless Microfilament Nonwoven fabric

A new and revolutionary microfilament fabric & the best product available in the market. Microfiber is no competition for M-Z, as soon as you see this fabric you will see and experience the difference.

Since the introduction of this fabric we have had great success in selling this fabric for wiping applications as well as a new kind of (printing) textile, used for among others flags, banners, bags, shades/screens, filtration, artificial leather & suede, canvas/duck products, covers, tents, sails, etc.

The fabric is made of Polyamide and Polyester microfilament fibers. It possesses high multi-directional tensile strengths, high tear resistance and is extremely low linting. It also has a high and fast degree of absorbency. Our M-Z is not an alternative for the spunlace micro-fibers from China, etc. No, M-Z is the new evolution microfilament; therefore a new and better product.

M-Z is an endless microfilament Nonwoven instead of a short fiber spunlace micro-fiber. As the normal micro-fibers are made by a normal spunlace method, M-Z is made by a new and innovative way of producing. By combining spunbonding and hydro-entangling and, of course, some other secret methods, our supplier has been able to make an unique, very absorbing and extremely low linting fabric.

By splitting the fibers, M-Z has a very fast capillary reaction. Also unique is that this fabric has the same strength in all directions, wet as well as dry. It is many, many times washable up to 60 degrees Celsius.

So what is the main difference between micro-fiber and our M-Z?

Dtex of M-Z is 0.15 dtx against micro-fiber 0.80 - 1 Dtex. So it has a very fine structure. Micro-fiber is made of stapled fibers so very short fibers, where M-Z is a continuous filament of very fine denier (1m² of M-Z has about 10.000 km of filament).

Absorption of micro-fiber is around 2 times its weight where M-Z absorbs up to 4 times its own weight. However, we feel that you will not use a micro-fiber or microfilament fabric to clean up some spill of water or so. No, you use this for real cleaning like windows, bathrooms, mirrors, etc, etc...

Coming to these jobs, when you have the fabric in hand, you will notice that our M-Z does the job easier and better than other fabrics.

M-Z is sold in mother rolls and the original (untreated) material is quite stiff. However, after washing it one time it softens and gives a leathery feel. This also occurs by just making it wet.

We are now also able to offer some alternatives:

- * We can make the product soft with a softener, so you have the leathery feel immediately; **Soft M-Z**.
- * We can deliver the fabrics in the pastel colors for color-coding; **Colored M-Z**.
- * We can cut and fold into wipes; **Colored & Calandared wipes** and **plain, white wipes**.
- * We can also supply a **M-Z Tea Towel**, printed on both sides.

We invite you to find out more about our M-Z fabric and its many possibilities using following links.

Advantages for M-Z

- Adult bibs and baby bibs
- Anti-allergic properties
- Excellent water vapour- and air permeability
- High multi directional MD/CD strength values
- High tear resistance
- Perfect sound absorption
- Heat isolating
- High UV protection
- Very low light transmission
- Low weight
- Drape-ability
- Extremely low linting
- Washable

Why **M-Z** instead of microfiber? **M-Z** is not a micro fiber but a **microfilament** fabric. The difference is that Microfiber is chemically bonded and is therefore build up out of short fibers. Our **M-Z** on the contrary is a microfilament fabric and is produced with split fibers which are bonded through hydro entangling and the fibers are therefore 'endless', which means that the fabric is extremely lint free in comparison with the low lint features of a microfiber.

If you compare the linting of a microfiber and our **microfilament** fabric, you will see the difference. Also the dtex is much lower than microfiber fabrics.

- **M-Z** between 0.1 - 0.15 dtex
- Microfiber between 0.8 - 1 dtex

M-Z has a very high absorption capacity and dries again very fast.

Some more areas where you can sell **M-Z**:

- Acoustic Nonwovens for sound absorption
- Rental wipes (restriction is on hand dry rolls)
- Mouse pads
- Computer wipes
- Horse cooling down blankets and for under the saddle
- Baby bibs (re-usable)
- UV protection (without additional treatments)

Potential markets for M-Z

- Basis material for banners, signs and promo products
- Wipes for the automotive industry
- Aircraft specialty wipes
- Basis material for shoes
- Basis material for sun screens

- Specialty wipes
- Car and boat covers
- Bathrobe
- Wash mittens
- Visitor grown (re-usable)

- Coverall (re-usable) and protective clothing
- Aprons
- Epilating strips
- Extremely low lint wipes
- Reinforcement for leather products

- Reinforcement for rubber boots
- Airline blankets
- Gloves and glove liners
- Agricultural capillary mats

- Greenhouse shading
- Tablecloths
- Backing material for coated products
- Cosmetic applicators / removers
- Optical wipes

Bed sheets

M-Z for Pillows and Comforters

- Dense fabric, ideal for holding feathers in down comforters.
- High breath-ability.
- Very soft hand.
- Low weight.
- Ultrasonically weld able.
- Can be printed and dyed with existing technologies.

FILAMENT in contrast to FIBERS

	Micro-filament M-Z	Micro-fiber
Kind of fibers	Filaments	staple fibers
Web forming technique	Spunbond	carding
Fiber length	Endless	38 - 90 mm
Shape of fiber	not crimped	crimped
Bonding	Hydrolace	chemical additives
Fines of fibers	0.10 - 0.15 dtex	0.80 - 1 dtex
Absorption by	high capillary force due to real microfiber structure	fibers
Mechanical strengths	in MD and CD almost equal	in MD strong, in CD weaker
Mechanical strength values	High	low
Elongation in dry condition	in MD and CD almost equal	in CD much higher than in MD
Elongation in wet condition	same as in dry condition	weaker than in dry condition
Softness	low, after washing high	high
Stiffness	high, after washing low	low
Linting	extremely low linting	low linting
Dry up time	Fast	slow
UV protection	High	low - none

Anti allergic

M-Z for Anti-Mite Encasings

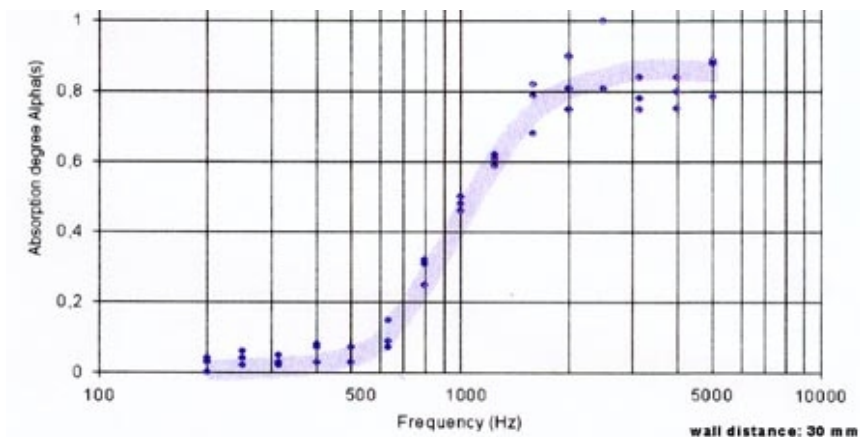
- Excellent barrier standard;
- DMT tested:
GF # 70100103
GF # 70107902
- High breathability; Hohenstein # 03.4.4636
- Liquid absorption and excellent drying time for high comfort; Hohenstein # 03.4.4636
- Resistant to growth of fungi
- Multiple washable at 95°C
- Best protection without chemical additives
- Excellent textile hand
- Oeko - Tex Standard 100, Class 1

Sound absorption

Sound Absorption Degree in Reverberation Chamber according DIN EN 20354

This was tested in ca. 100 gsm M-Z with a distance to the wall of 30 mm.

	absorption degree Alpha (s)
100 Hz	0
200 Hz	< 0.1
300 Hz	< 0.1
400 Hz	≤ 0.1
500 Hz	≤ 0.1
600 Hz	≤ 0.1
700 Hz	between 0.1 and 0.2
800 Hz	≤ 0.3
900 Hz	≤ 0.4
1000 Hz	≤ 0.5
2000 Hz	≈ 0.8
3000 Hz	< 0.9
4000 Hz	< 0.9
5000 Hz	≤ 0.9



UVA & UVB Transmissions and UV Protection Factor

Norm: Australian / New Zealand 4399:1996

Results after 8 tests:

●	UVA	(315-400 nm) (% T)	:	2.37
		£ Standard deviation	:	0.39
		Variation coefficient	:	16.63 %
●	UVB	(AV) (280-315 nm)	:	0.06
		£ Standard deviation	:	0.03
		Variation coefficient	:	44.86 %
●	UPF		:	418.44
		£ Standard deviation	:	67.64
		Variation coefficient	:	16.15 %

Conclusion: The test was nominated as excellent protective

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Endless Microfilament Nonwoven fabric

Composition: 70% Polyester & 30% Polyamide
Web bonding: Hydro lace
Characteristics: Extremely low linting, high UV protection, fast drying, good absorption speed, resistant to most solvents, anti-allergic.

		Unit	100 gsm	130 gsm	170 gsm
Thickness		mm	ca. 0.48	ca. 0.57	ca. 0.75
Tensile strength	md	N/50 mm	≥ 250	≥ 300	≥ 400
Tensile strength	cd	N/50 mm	≥ 250	≥ 300	≥ 400
Elongation	md	%	≥ 40	≥ 40	≥ 40
Elongation	cd	%	≥ 45	≥ 40	≥ 40
Tear resistance	md	N	≥ 7.5	≥ 10	≥ 13
Tear resistance	cd	N	≥ 7.5	≥ 10	≥ 13
Absorption	Din 53923-78	:	ca. 350% - 400%		

Material	:	PES / PA (ca. 70% / 30%)	
Bonding	:	Water jet	
Weight:	:	100 g/m ²	
Thickness	:	ca. 0.48 mm	
Air permeability, following DIN EN ISO 9237	:	100 l/m ² (range 70 to 130 l/m ² min)	
Max. tensile force, following DIN EN ISO 13934	lengthways	:	330 N (average: 310 N)
	crossways	:	360 N (average 320 N)
Max. tensile elongation following DIN EN ISO 13934	lengthways	:	48% (average 41%)
	crossways	:	50% (average 45%)

Note: This safety sheet is only valid for first quality fabric and should therefore only be used as a guideline.