






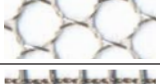








## Shielding fabrics

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### Product overview

Page	Picture (magnification 4-times)	Attenuation at 1 GHz	Shielding HF	Shielding LF / Groundable	Application	As canopy	Materials	Width	Weight	Fire protection class	Color	Discoloration silver	Optical transparency	Common quality grade	Result washing test / Attenuation *
15/15		30 dB	X		Clothing	No	Cotton, copper, silver	150 cm	70 g/m <sup>2</sup>		White	No	None	Normal	Very bad
14/15		25 dB	X		Net curtain	No	Polyester, metal fiber	250 cm	40 g/m <sup>2</sup>	B1	White	-	High	Normal	Bad
13/15		30 dB	X		Curtain	No	Polyester, copper, silver	250 cm	80 g/m <sup>2</sup>		White	No	Medium	Very high	Good
12/15		60 dB	X	X	Technical	No	Nylon, silver	130 cm	45 g/m <sup>2</sup>		Silver	Strong	None	High	Very good
11/15		35 dB	X	X	Miscellaneous	No	Cotton, polyester, stainless steel	150 cm	190 g/m <sup>2</sup>		Light gray/ Silver	No	None	Very high	Very good
10/15		45 dB	X	X	Clothing	No	Cotton, polyamid, silver, elastan	160 cm	150 g/m <sup>2</sup>		Gray/ brown	Little	None	Very high	Normal
9/15		35 dB	X	X	Clothing	No	Cotton, polyester, silver, elastan	150 cm	150 g/m <sup>2</sup>		Gray/ brown	Little	None	Normal	Very good
8/15		30 dB	X	X	Net curtain	Yes	Nylon, silver	250 cm	20 g/m <sup>2</sup>		Gray/ Brown	No	High	High	Normal
7/15		40 dB	X	X	Net curtain	No	Nylon, silver	120 cm	35 g/m <sup>2</sup>		Silver	Little	Strong	Very high	Normal
6/15		50 dB	X	X	Net curtain	Yes	Nylon, silver	150 cm	40 g/m <sup>2</sup>		Gray/ silver	Little	Medium	High	Very good
5/15		35 dB	X		Net curtain	Yes	Polyester, copper, silver	260 cm	55 g/m <sup>2</sup>		Snow-white	No	High	Very high	Very good
4/15		25 dB	X		Net curtain	Yes	Polyester, copper, silver	260 cm	65 g/m <sup>2</sup>		White	No	High	Very high	Normal
3/15		57 dB	X	X	Curtain	No	Cotton, polyester, silver	150 cm	150 g/m <sup>2</sup>		Beige/ brown	Little	None	High	Good
2/15		35 dB	X		Curtain	No	Eco-cotton, copper, silver	250 cm	70 g/m <sup>2</sup>		Ecru-white	No	Medium	Very high	Very good

\* Find more information about the washing test on page 16/16.

## Shielding fabrics

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### Shielding fabric NATURELL (HF)

Our recommendation!

#### Characteristics

NATURELL is a **semi-transparent, unbleached ecological cotton fabric** for HF shielding. Typical application as **curtain**. Our top-selling classic shielding fabric!

- **Ecological cotton fabric without chemicals, certified to Öko-Tex 100 and 1000**
- **High screening attenuation for a cotton fabric**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**

#### Technical data

- **Width: 250 cm, +/- 2 cm**
- **Length: Available by the meter, 120 meter rolls**
- **Attenuation: 35 dB at 1 GHz**
- Color: Ecru-White
- Raw materials: 82 % cotton, 17 % copper, 1 % silver
- Weight: 70 g/m<sup>2</sup>
- Dimension stability: +/- 3 %
- Certificates: Öko-Tex 100 and 1000

#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

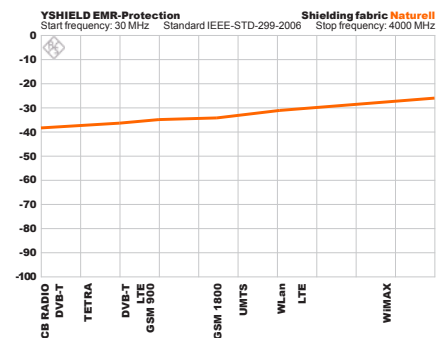
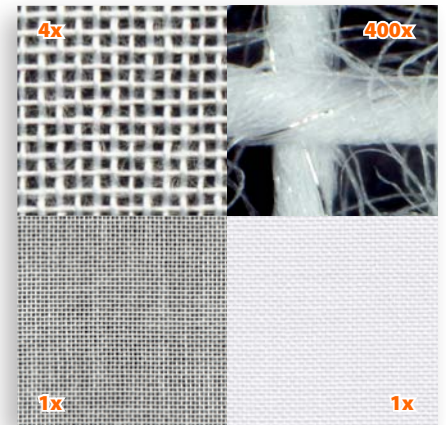
The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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#### About Swiss Shield®

This fabric is manufactured by Swiss Shield® in Switzerland. The secret of its shielding effectiveness is a worldwide unique, patented, ultra-thin high-tech yarn. We at YSHIELD particularly value the high quality of the fabrics (haptics, slip resistance, washing resistance). **It is not for nothing that we are the world's largest supplier of Swiss Shield®!**



## Shielding fabrics

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### Shielding fabric SILVER-TWIN (HF+LF)

Our recommendation!

#### Characteristics

SILVER-TWIN is a **compact cotton/polyester fabric** for HF+LF shielding. Typical application as **curtain**, to sew clothes, handy bags, etc..

**Special feature:** The frontside is made of white cotton, while the backside is densely woven with a silver thread. Despite the extremely high attenuation due to the dark silver threads on the backside, this fabric has a light gray front side!

- **Very high attenuation, even at high frequencies!**
- **Excellent cost/performance ratio**
- **Contactable (groundable) to shield LF electric fields**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: High**

#### Technical data

- **Width: 150 cm**, +/- 2 cm
- **Length: Available by the meter**, 150 meter rolls
- **Attenuation: 57 dB at 1 GHz**
- Color: Frontside light gray, backside silver
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver, spots or stripes are no quality defect!
- Raw materials: 50 % cotton, 35 % polyester, 15 % silver
- Weight: 150 g/m<sup>2</sup>
- Surface conductivity: 0.25 ohm (square resistance R<sub>□</sub>)

#### Grounding

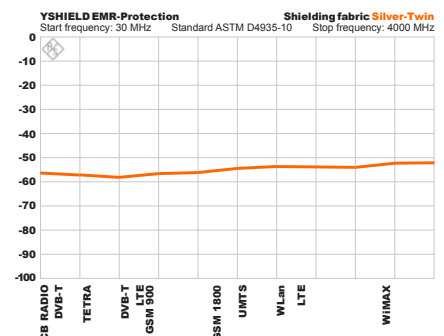
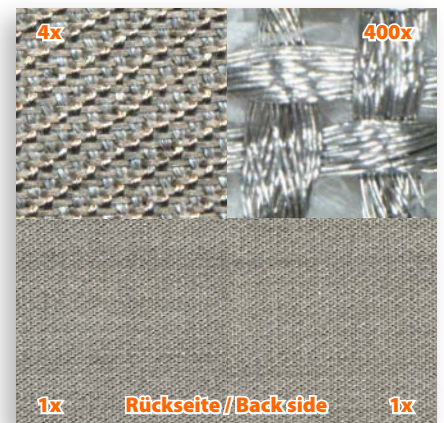
Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric NEW-DAYLITE (HF)

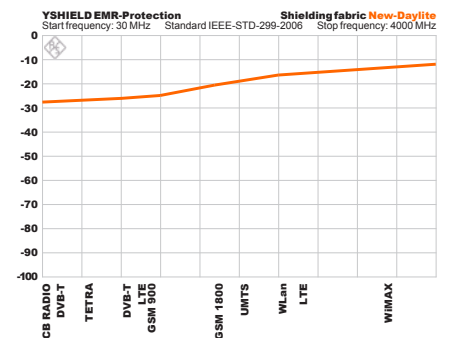
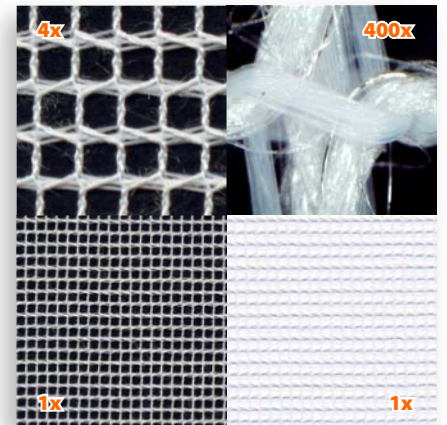
#### Characteristics

NEW-DAYLITE is a **highly-transparent polyester fabric (Trevira®)** for HF shielding. Typical application as **net curtain** or to sew a **bed canopy**. Our top-selling classic shielding fabric!

- **Very high transparency**
- **Crease resistant Trevira®-polyester**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**

#### Technical data

- **Width: 260 cm, +/- 2 cm**
- **Length: Available by the meter, 120 meter rolls**
- **Attenuation: 25 dB at 1 GHz**
- **Color: White**
- **Raw materials: 78 % polyester (Trevira), 21 % copper, 1 % silver**
- **Weight: 65 g/m<sup>2</sup>**
- **Dimension stability: +/- 1 %**
- **Certificates: Öko-Tex 100 and 1000**



#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!			
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#### About Swiss Shield®

This fabric is manufactured by Swiss Shield® in Switzerland. The secret of its shielding effectiveness is a worldwide unique, patented, ultra-thin high-tech yarn. We at YSHIELD particularly value the high quality of the fabrics (haptics, slip resistance, washing resistance). **It is not for nothing that we are the world's largest supplier of Swiss Shield®!**

## Shielding fabrics

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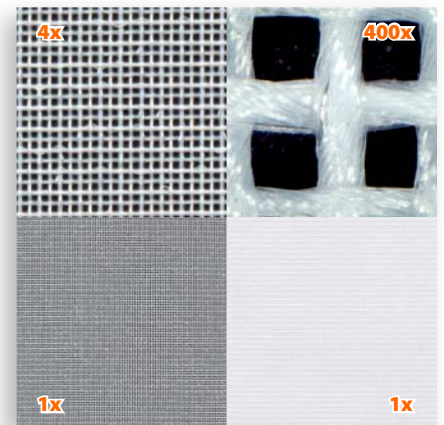
### Shielding fabric VOILE (HF)

Our recommendation!

#### Characteristics

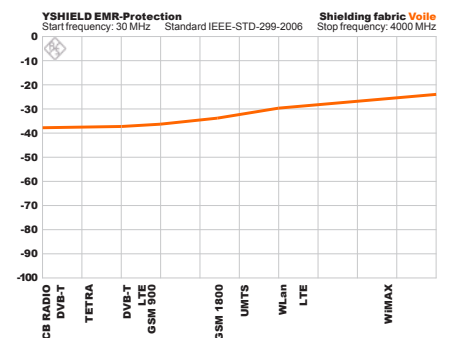
VOILE is a **transparent voile-fabric** for HF shielding. Typical application as **net curtain** or to sew a **bed canopy**. Our technically best fabric regarding to the attenuation, transparency and the mechanical stability.

- **High transparency at high screening attenuation**
- **Very elegant and slightly glossy**
- **Crease resistant polyester**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**



#### Technical data

- **Width: 260 cm**, +/- 2 cm
- **Length: Available by the meter**, 120 meter rolls
- **Attenuation: 35 dB at 1 GHz**
- Color: Snow white
- Raw materials: 83 % polyester, 16 % copper, 1 % silver
- Weight: 55 g/m<sup>2</sup>
- Dimension stability: +/- 1 %



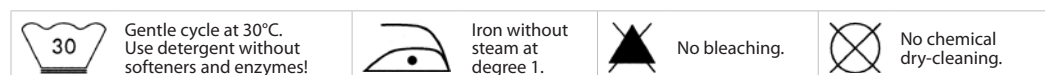
#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care



#### About Swiss Shield®

**This fabric is manufactured by Swiss Shield® in Switzerland exclusively for YSHIELD.** The secret of its shielding effectiveness is a worldwide unique, patented, ultra-thin high-tech yarn. We at YSHIELD particularly value the high quality of the fabrics (haptics, slip resistance, washing resistance). **It is not for nothing that we are the world's largest supplier of Swiss Shield®!**

## Shielding fabrics

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### Shielding fabric SILVER-TULLE (HF+LF)

Our recommendation!

#### Characteristics

SILVER-TULLE is a **transparent silvered fabric** for HF+LF shielding. Typical application as **net curtain**, as room divider in laboratories, medical practices, etc. and due to the highest washability to sew a **bed canopy**.

**Special features:** 1) By comparison to its predecessors (Curtain, Dali) this fabric don't lose its screening attenuation while washing or movement, due to a better silvering process. 2) This fabric is hard to sew accurately, because it's stretchy and pulls out of place easily when you try to sew on it. Please note that customized curtains are difficult to sew dimensionally stable!

- **Good transparency at very high screening attenuation**
- **Antiseptic** due to the full silver plating
- **Contactable (groundable) to shield LF electric fields**
- **Textile similar characteristics:** Washable, easy to process.  
Exception: Do not iron.
- **Very crease resistant**
- **Quality grade: High**

#### Technical data

- **Width: 150 cm**, +/- 2 cm
- **Length: Available by the meter**, 100 meter rolls
- **Attenuation: 50 dB at 1 GHz**
- Color: Gray, silver
- Coloring: This fabric consists of unprotected silver threads that can discolorate. This process is normal with silver. **Colored spots or stripes are no quality defect!**
- Raw materials: 80 % nylon, 20 % silver
- Weight: 40 g/m<sup>2</sup>
- Surface conductivity: 0.8 ohm (square resistance R<sub>□</sub>)

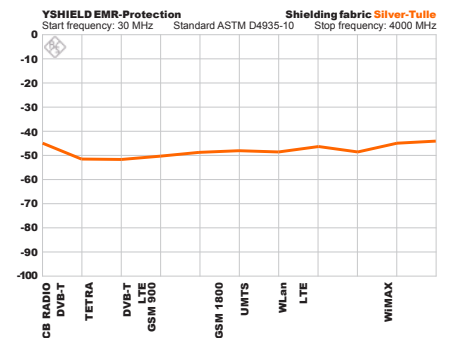
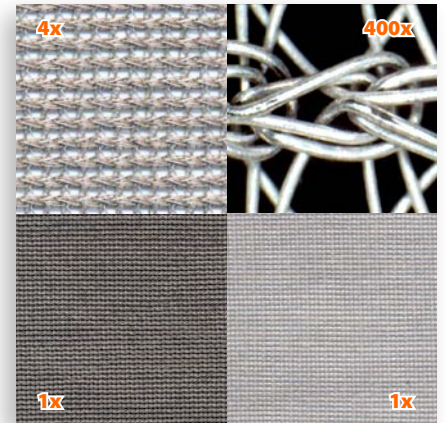
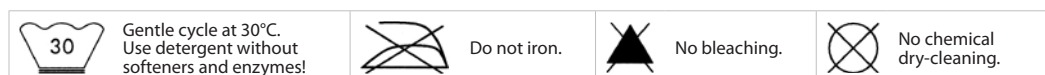
#### Grounding

Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care



## Shielding fabrics

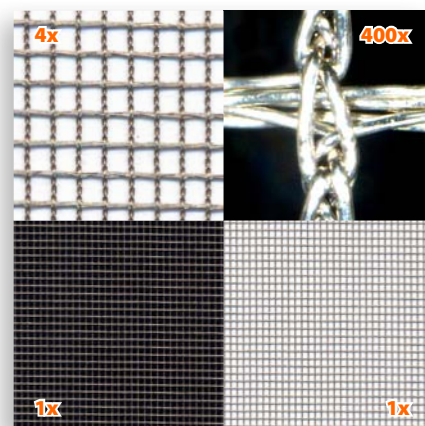
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### Shielding fabric SILVER-NET (HF+LF)

#### Characteristics

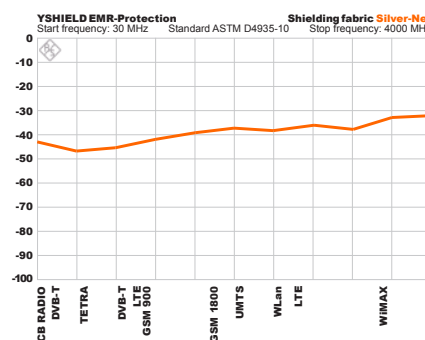
SILVER-NET is a **transparent silvered fabric** for HF+LF shielding. Typical application as **net curtain**, as room divider in laboratories, medical practices, etc. and due to the high mechanical stability to sew a **bed canopy**. Even usable as detachable window screen for interior use.

- **Dimension stable and tearproof**, e.g. as bed canopy
- **Good transparency at high screening attenuation**
- **Antiseptic** due to the full silver plating
- **Contactable (groundable) to shield LF electric fields**
- **Textile similar characteristics:** Washable, easy to process.  
Exception: Do not iron.
- **Very crease resistant**
- **Quality grade: Very high**



#### Technical data

- **Width: 120 cm**, +/- 2 cm
- **Length: Available by the meter**, 100 meter rolls
- **Attenuation: 40 dB at 1 GHz**
- Color: Silver
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver.  
**Colored spots or stripes are no quality defect!**
- Raw materials: 80 % nylon, 20 % silver
- Weight: 35 g/m<sup>2</sup>
- Surface conductivity: 1.5 ohm (square resistance R□)



#### Grounding

Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Do not iron.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric PERSPECTIVE (HF+LF)

#### Characteristics

PERSPECTIVE is a **highly-transparent and air-permeable fabric** for HF+LF shielding. Typical application as **net curtain** or to sew a **bed canopy**.

**Special feature:** This fabric is hard to sew accurately, because it's stretchy and pulls out of place easily when you try to sew on it. Please note that customized curtains are difficult to sew dimensionally stable!

- **Best transparency of all fabrics**
- **Contactable (groundable) to shield LF electric fields**
- **Textile similar characteristics:** Washable, difficult to sew.  
Exception: Do not iron!
- **Quality grade: Normal**

#### Technical data

- **Width: 250 cm, +/- 5 cm**
- **Length: Available by the meter, 120 meter rolls**
- **Attenuation: 30 dB at 1 GHz**
- Color: Gray, brown
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver.  
**Colored spots or stripes are no quality defect!**
- Raw materials: 80 % nylon, 20 % silver
- Weight: 20 g/m<sup>2</sup>
- Dimension stability: +/- 3 %
- Surface conductivity: 2.2 ohm (square resistance R□)

#### Grounding

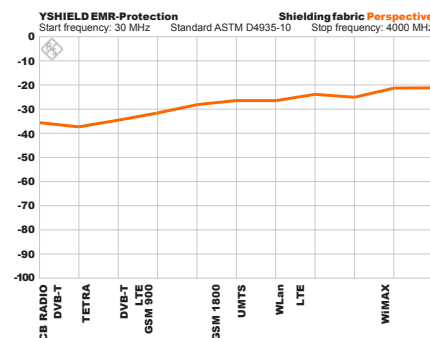
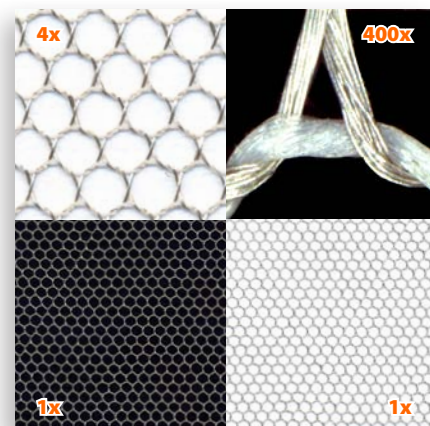
Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Do not iron.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric SILVER-JERSEY (HF+LF)

#### Characteristics

SILVER-JERSEY is a **very elastic and lightweight cotton jersey fabric** for HF+LF shielding. Typical application **to sew articles of clothing** (tshirts, underwear, etc.).

**Special features:** 1) This fabric shrinks on first washing, in the length by **7 %** and in the width by **4 %**, please consider this when sewing clothing! 2) The edges of this fabric are curling after cutting, sewing the edges prevents this! 3) Because this fabric contains silver threads, this fabric has antibacterial and wound healing effects on both sides.

- **Good haptics and pleasant skin feel**
- **Breathable and absorbent** like normal cotton jersey
- **Contactable (groundable) to shield LF electric fields**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Normal**

#### Technical data

- **Width: 150 cm**, +/- 2 cm
- **Length: Available by the meter**, 100 meter rolls
- **Attenuation: 35 dB at 1 GHz**
- Color: Gray, brown
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver. **Colored spots or stripes are no quality defect!**
- Raw materials: 50 % cotton, 34 % polyester, 14 % silver, 2 % elasthan
- Weight: 150 g/m<sup>2</sup>
- Surface conductivity: 2.0 ohm (square resistance R□)

#### Grounding

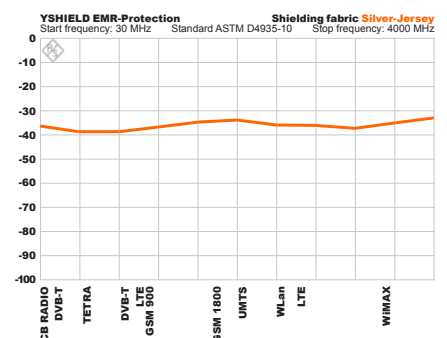
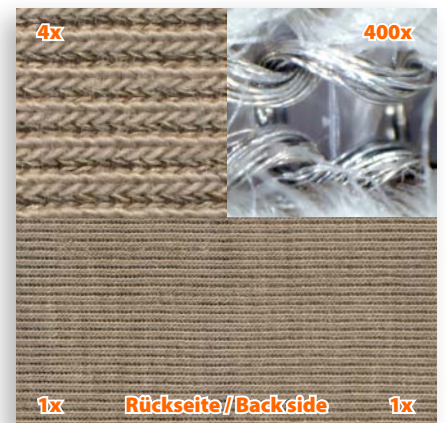
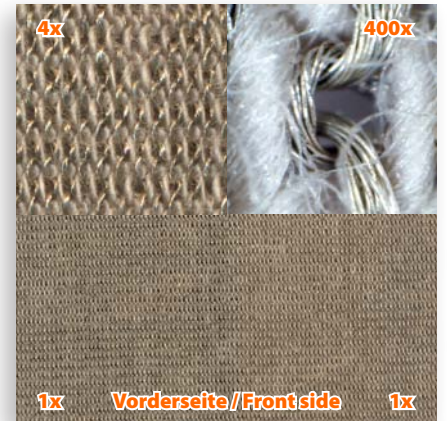
Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric SILVER-SOFT (HF+LF)

#### Characteristics

SILVER-SOFT is an **elastic cotton jersey fabric** for HF+LF shielding. Typical application **to sew articles of clothing** (tshirts, underwear, etc.).

**Special features:** 1) This fabric shrinks on first washing, in the length by **23 %** and in the width by **4 %**, please consider this when sewing clothing! 2) The frontside is made of cotton, while the backside is densely woven with silver threads. **Due to the silver fibers**, this fabric has antibacterial and wound healing effects, if sewed with the silver fibers inward.

- **Unbelievable soft and smooth, breathable, absorbent**
- **Contactable (groundable) to shield LF electric fields**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**

#### Technical data

- **Width: 160 cm**, +/- 2 cm
- **Length: Available by the meter**, 100 meter rolls
- **Attenuation: 45 dB at 1 GHz**
- Color: Frontside gray, backside brown
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver. **Colored spots or stripes are no quality defect!**
- Raw materials: 48 % cotton, 35 % polyester, 15 % silver, 2 % elasthan
- Weight: 150 g/m<sup>2</sup>
- Surface conductivity: 0.5 ohm (square resistance R<sub>□</sub>)

#### Grounding

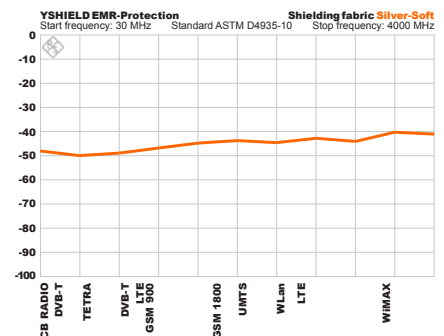
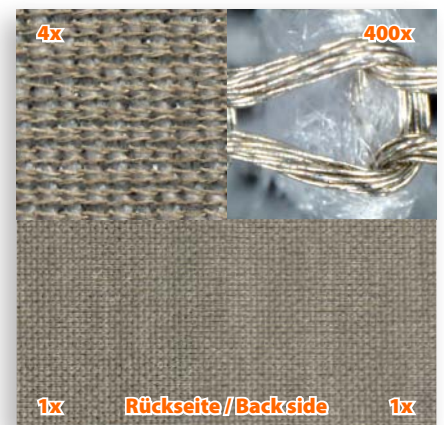
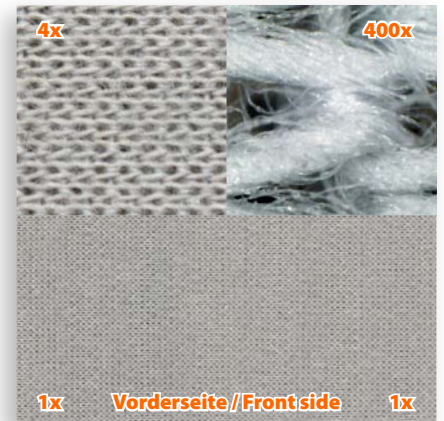
Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric STEEL-TWIN (HF+LF)

Our recommendation!

#### Characteristics

STEEL-TWIN is a **compact cotton/stainless steel fabric** for HF+LF shielding. Typical application as **curtain** or for floor mats.

**Special feature:** The frontside is made of white cotton, while the backside is densely woven with a stainless steel thread. Despite the high attenuation due to the gray stainless steel threads on the backside, this fabric has a light gray front side!

- **Good screening attenuation, special at high frequencies!**
- **Excellent cost/performance ratio**
- **Contactable (groundable) to shield LF electric fields**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**

#### Technical data

- **Width: 150 cm**, +/- 2 cm
- **Length: Available by the meter**, 150 meter rolls
- **Attenuation: 35 dB at 1 GHz**
- Color: Frontside light gray, backside silver
- Raw materials: 68 % cotton, 17 % polyester, 15 % stainless steel
- Weight: 190 g/m<sup>2</sup>
- Dimension stability: +/- 3 %
- Surface conductivity: 100-800 ohm (square resistance R□)

#### Grounding

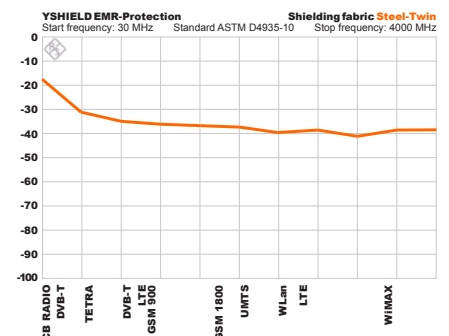
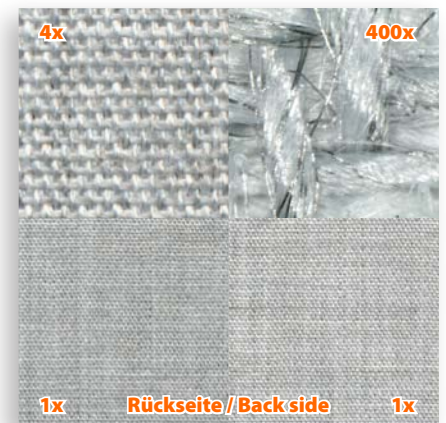
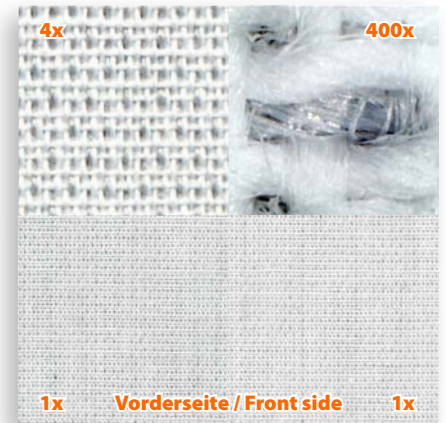
Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric SILVER-SILK (HF+LF)

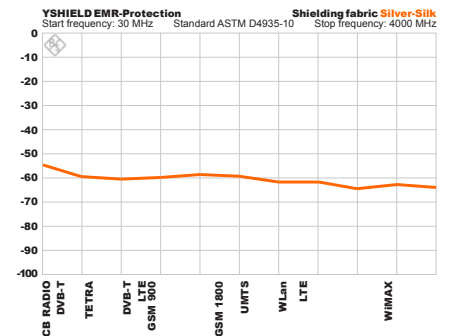
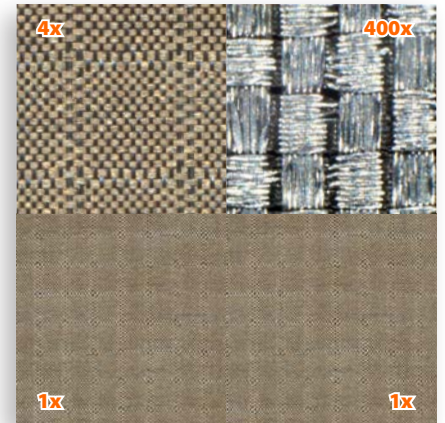
#### Characteristics

SILVER-SILK is a **silvered parachute silk / nylon fabric** for HF+LF shielding. Typical application preferable in **technical applications** to shield cables, **handy bags, room divider**, etc.. Due to the good washability even sewable in the **inside of articles of clothing**.

- **Very high screening attenuation**
- **Antiseptic** due to the full silver plating
- **Contactable (groundable) to shield LF electric fields**
- **Textile similar characteristics:** Washable, easy to process.  
Exception: Do not iron.
- **Quality grade: High**

#### Technical data

- **Width: 130 cm, +/- 2 cm**
- **Length: Available by the meter, 100 meter rolls**
- **Attenuation: 60 dB at 1 GHz**
- Color: Silver
- Coloring: This fabric contains or consists of unprotected silver threads that can discolorate. This process is normal with silver, spots or stripes are no quality defect!
- Raw materials: 80 % nylon, 20 % silver
- Weight: 45 g/m<sup>2</sup>
- Surface conductivity: 0.2 ohm (square resistance R<sub>□</sub>)



#### Grounding

Due to the surface conductivity this fabric **can be grounded** to shield low frequency (LF) electric fields.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Do not iron.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric EVOLUTION (HF)

#### Characteristics

EVOLUTION is a **semi-transparent polyester fabric (Trevira®)** for HF shielding. Typical application as **curtain**.

- **Crease resistant Trevira®-polyester**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Very high**

#### Technical data

- **Width: 250 cm, +/- 2 cm**
- **Length: Available by the meter, 120 meter rolls**
- **Attenuation: 30 dB at 1 GHz**
- Color: White
- Raw materials: 91 % polyester (Trevira), 8.5 % copper, 0.5 % silver
- Weight: 80 g/m<sup>2</sup>
- Dimension stability: +/- 1 %

#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

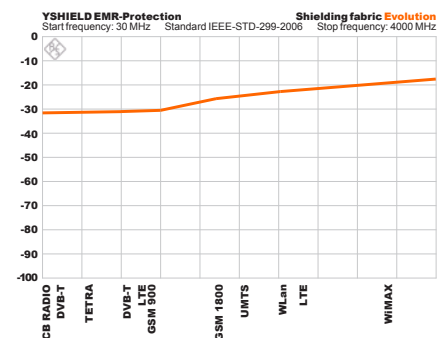
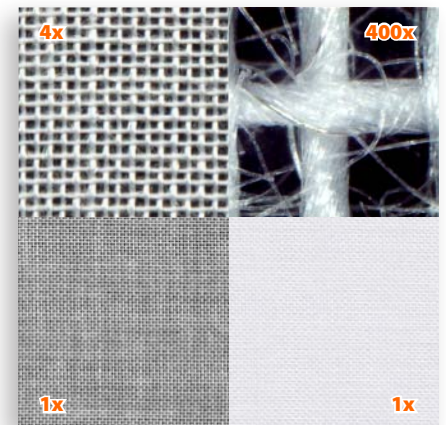
The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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#### About Swiss Shield®

This fabric is manufactured by Swiss Shield® in Switzerland. The secret of its shielding effectiveness is a worldwide unique, patented, ultra-thin high-tech yarn. We at YSHIELD particularly value the high quality of the fabrics (haptics, slip resistance, washing resistance). **It is not for nothing that we are the world's largest supplier of Swiss Shield®!**



## Shielding fabrics

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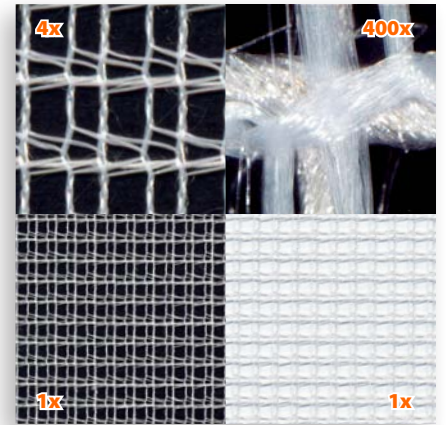
### Shielding fabric TOPAS-CS (HF)

#### Characteristics

TOPAS-CS is a **highly-transparent, white polyester fabric** for HF shielding. Typical application as **net curtain**.

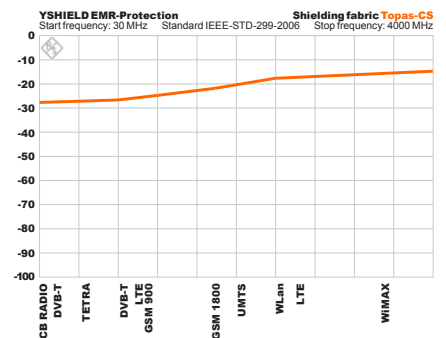
**Special feature:** Only fabric on the market, that meets the fire protection standard B1 for public buildings!

- **Very high transparency**
- **Crease resistant Trevira®-polyester**
- **Textile characteristics:** Washable, easy to iron and process. Well suited as curtain, we do not recommend applications with frequent movement, (e.g. as canopy), the metal could be rubbed off, see our washing test!
- **Quality grade: Normal**



#### Technical data

- **Width: 250 cm, +/- 2 cm**
- **Length: Available by the meter, 120 meter rolls**
- **Attenuation: 25 dB at 1 GHz**
- Color: White
- Raw materials: 90 % polyester (Trevira® CS), 10 % metal fiber
- Weight: 40 g/m<sup>2</sup>
- Dimension stability: +/- 1 %
- **Meets fire protection standard B1 for public buildings**



#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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## Shielding fabrics

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### Shielding fabric WEAR (HF)

#### Characteristics

WEAR is a **compact cotton fabric** for HF shielding. Typical application, in spite of the name, only for applications without frequent movement!

- **Good haptics and pleasant skin feel**
- **Textile characteristics:** Washable, easy to iron and process
- **Quality grade: Normal**

#### Technical data

- **Width: 150 cm**, +/- 2 cm
- **Length: Available by the meter**, 80 meter rolls
- **Attenuation: 30 dB at 1 GHz**
- Color: White; dyeing possible
- Raw materials: 90 % cotton, 9.5 % copper, 0.5 % silver
- Weight: 70 g/m<sup>2</sup>
- Dimension stability: +/- 3 %

#### Grounding

**Cannot be grounded.** Low-frequency electrical fields (LF) must be reduced by additional procedures. We recommend to shield this fields or to switch it off with a demand switch.

#### Shielding attenuation

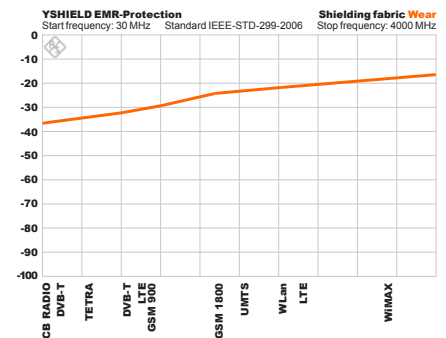
The shielding attenuation is **regularly tested in our own laboratory** or by **Professor Dipl.Ing. Pauli** at the University of the German Federal Armed Forces in Munich due to the standards ASTM D4935-10 and/or IEEE-STD-299-2006. Current expert report is available upon request.

#### Care

	Gentle cycle at 30°C. Use detergent without softeners and enzymes!		Iron without steam at degree 1.		No bleaching.		No chemical dry-cleaning.
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#### About Swiss Shield®

This fabric is manufactured by Swiss Shield® in Switzerland. The secret of its shielding effectiveness is a worldwide unique, patented, ultra-thin high-tech yarn. We at YSHIELD particularly value the high quality of the fabrics (haptics, slip resistance, washing resistance). **It is not for nothing that we are the world's largest supplier of Swiss Shield®!**



## Shielding fabrics

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### Information: Washing, movement and attenuation

Virtually all traders keep quiet about the fact, that fabrics containing silver- or stainless steel threads loose their attenuation more or less quickly during washing and in case of movement. As there is still considerable misinformation on this, we, as the largest provider of shielding textiles will publish here our latest washing test.

#### Washing and drying

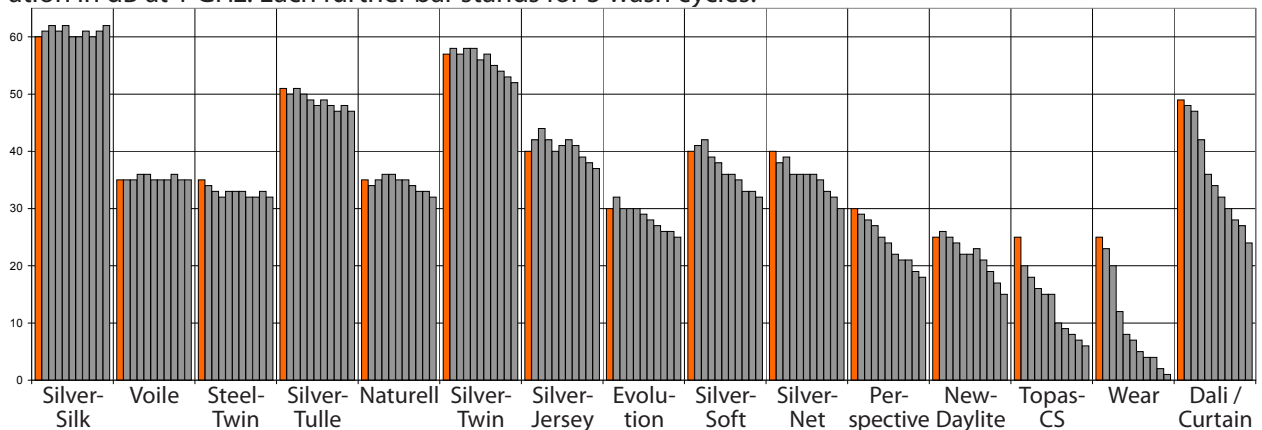
We have washed all well-known fabrics on the market 50 times. Detergent was a neutral eco/green washing detergent without softeners and enzymes. First 40 minutes gentle wash cycle for wool at 30°C, after this 45 minutes dryer cycle at 40°C, this should simulate normal movement / usage.

#### Measuring method

We opted for the standard ASTM D4935-10. This method provides a radial measurement (in all polarisation directions) which is most close to reality! In addition, the frequency range from 30 MHz to 4 GHz can be measured in a single step with the two coaxial TEM measuring heads.

#### Test result

The orange bar stands for the attenuation before washing. The numbers to the left indicate the attenuation in dB at 1 GHz. Each further bar stands for 5 wash cycles.



#### Conclusion

As expected, some fabrics are more durable, some less. **Canopies** made of Silver-Tulle, Voile or Naturell are highly recommended! Canopies made of Perspective are still suitable unless they are not frequently moved e.g. when taking them daily on journeys. Moreover, a canopy is hardly likely to be washed 50 times over its lifetime. **Clothing:** Many competitors (including a shirt manufacturer) use Wear fabric for sewing clothes. Take a look at the test result and see why this is not a good choice! More suitable for clothing are our fabrics Silver-Jersey and Silver-Soft. **Curtains:** All fabrics are suitable!

#### Washing tips

In the previous four washing tests we also used cheap washing powders, e.g. of Aldi, which lowered the attenuation several times! It is therefore **very important that the washing powder does not contain any enzymes and softeners!** „Basic- or neutral washing detergents“ are suited best. The best way is to hang out the washing dry. If you use a dryer keep the temperature low. The same counts for ironing (degree 1 and little steam).