

capabilities

Our core competency – textile solutions for virtually any application – all under one roof. Using filament and staple fibre yarns, we weave textiles measuring up to 3.78 m grey width. For this, we use state-of-the-art machines manufactured by Sulzer, Dornier and Picanol.

SR Webatex GmbH has the ISO 9001 certificate and the standard for Management of the Environment EN ISO 14001.



contact

SR Webatex GmbH
Postfach 10 08 61
95408 Bayreuth
Tunnelstraße 6
95448 Bayreuth • Germany
Fon +49 (0) 921-286-0
Fax +49 (0) 921-286-288

info@sr-webatex.de
www.sr-webatex.de

www.feuerstiehl.de



our products

Adventure

Fabrics for leisure, outdoor wear and sport.

Protection

Protective and work clothing meeting the legal norms and requirements.

Home & Office

Fabrics for applications in interior architecture, sun protection, trade fair materials and domestic use.

Sports

Functional fabrics for the highest requirements of sports wear.

Engineering

High-tech fabrics for special requirements designed to fulfil specifications depending on the application of the fabrics, i.e. strength, elasticity etc.

Fashion

Fashionably sophisticated and qualitatively high value materials made of synthetic or cellulose fibres and/or natural fibres in various weights and optical designs.

Military / Law Enforcement

High-tech fabrics for military purposes and state and civil security services.



product information



Textile protection against electromagnetic radiation

certificate of function*

Frequency range
10 MHz - 4 GHz

Measurement base
ASTM D - 4935-89 and MILSTD 39012

Measurement result of shielding effectiveness **99,999999%**

The shielding material SR-Shield RS1 presents its extreme high shielding effectiveness to linear, vertical and horizontal polarization and to circular polarized waves.

70 dB

shielding effectiveness means

reduction of the power flux density



Communication service	SR-Shield RS1
C-network, TETRA, 450 MHz	71 dB
D-network, 900 MHz	70 dB
E-network, 1800 MHz	68 dB
Blue-Tooth, 2450 MHz	67 dB
4 GHz	67 dB

Tab.: Shielding effectiveness at different frequencies (most of them used for mobile communication)

Measurement result of surface resistance and conductivity

The specific surface resistance of "massive" silver is about $62 \times 10^{-4} \text{ S/cm}$ (copper $58 \times 10^{-4} \text{ S/cm}$).

The measurement result depend on the coating material, thickness and density of the threads, the thickness of the coating and potentially contact resistances of the surface.

The following results were measured:

	SR-Shield RS1
Surface Resistance	51 - 62 mΩ
Surface Conductivity	16 - 19 S



range of application

SR-Shield®

- Protective Clothing
- Military / Law Enforcement
- Medical Shielding
- Cellular Phone / Shielding
- Electromagnetic Pollution

SR-Shield provides an extremely high shielding effectiveness at radio frequencies. Exceptionally appropriate for protective clothing to protect persons who work with high intensity of electromagnetic waves.

certificate of drycleaning resistance*

Frequency range
10 MHz - 4 GHz

Measurement base
ASTM D - 4935-89 and MILSTD 39012

Measurement result of shielding effectiveness after dry cleaning

The shielding material SR-Shield RS1 also provides an extremely high shielding effectiveness after dry cleaning. More than 50 db shielding means a reduction of the power flux density of more than 99,999%. Less than 0,001% of power will penetrate the item.

Communication service	SR-Shield RS1
C-network, TETRA, 450 MHz	52 - 57 dB
D-network, 900 MHz	51 - 54 dB
E-network, 1800 MHz	51 - 54 dB
Blue-Tooth, 2450 MHz	51 - 54 dB
4 GHz	53 - 57 dB

Tab.: Shielding effectiveness at different frequencies (most of them used for mobile communication)

Measurement result of surface resistance and conductivity after dry cleaning

	SR-Shield RS1
Surface Resistance	55 - 65 mΩ
Surface Conductivity	18 - 17 S

* Measurements accomplished in 2008 by Prof. Dipl.-Ing. P.Pauli, German Armed Forces University Munich for RF-, Microwaves and Radar in Neuburg.