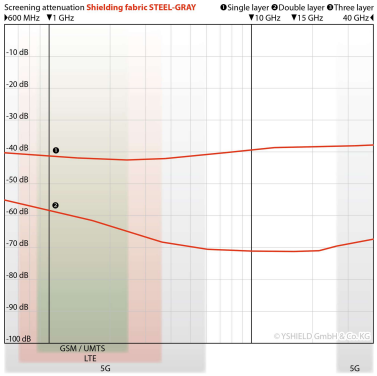
YSHIELD® TKG | Shielding headscarf

Headscarf (three-cornered or quadratic) from Steel-Gray, 41 dB attenuation.



Properties

Shielding headscarf from **Steel-Gray**, three-cornered as typical headscarf, quadratic as Bandana. First-class workmanship and quality.

Stable and long-lasting! Steel-Active is **not so soft on the skin**. The stainless steel threads feels like a little scratchy woolen sweater, but as headscarf over the hairs this doesn't bother. Because of the electrically conductive surface on both sides, low-frequency fields will connect less and can be conducted away more easily. Many electrosensitive people give priority to fabrics that are groundable!

Attenuation | Grounding

- This product shields **high frequency electromagnetic fields** (HF). The indicated dB-values apply to 1 GHz, view chart for other frequencies. Expert reports ranging from 40/600 MHz to 40 GHz according to standards ASTM D4935-10 or IEEE Std 299-2006, view report above.

Technical data

- **Size three-cornered**: 120 x 85 x 85 cm
- **Size quadratic**: 70 x 70 cm
- Color: Gray
- Attenuation: 41 dB
- Raw materials: 40 % cotton, 30 % polyester, 30 % stainless steel

Care instructions

- **Washing up to 60°C**
- **Iron without steam at degree 1**
- **Drying at low temperature**
- No bleaching
- No chemical dry-cleaning

YSHIELD®

Gutachten Schirmdämpfung

Expert report screening attenuation

Messobjekt

Abschirmstoff STEEL-GRAY

Datum der Messung

15.12.2019

Vorbemerkung

Die Prüflinge werden mit einer definierten Leistungsflussdichte S_1 bestrahlt, die durchdringende Leistungsflussdichte S_2 wird gemessen. Die Schirmdämpfung ist eine dimensionslose Messgröße in Dezibel (dB) und wird wie folgt berechnet:

$$\mathrm{dB} = 10 \cdot \log_{10} \frac{S_1}{S_2}$$

dB	Dämpfung
10	90 %
20	99 %
30	99,9 %
40	99,99 %
50	99,999 %
60	99,9999 %
...	...

Konformität

Die Messung der Dämpfung elektromagnetischer Wellen von **40/600 MHz bis 40 GHz** wurde (wahlweise je nach Materialeigenschaften) in Übereinstimmung mit dem Standard **IEEE Std 299™-2006** oder in Anlehnung an den Standard **ASTM D4935-10** durchgeführt.

Ort der Messung

Eigenes EMV-Labor nach gängigen etablierten Standards, zur täglichen Qualitätssicherung und Produktentwicklung.

Messaufbau

Als Messgeräte verwenden wir zwei vektorielle Netzwerkanalysatoren Rohde & Schwarz **ZNB20** und **ZNB40** mit einer Messdynamik bis 140 dB.

Als Antennen für IEEE Std 299™-2006 verwenden wir breitbandige **Hornantennen**. Als Antennen für ASTM D4935-10 verwenden wir breitbandige **TEM-Zellen** mit radialer Polarisation.

Measuring object

Shielding fabric STEEL-GRAY

Date of measurement

2019/12/15

Preliminary Note

The test samples are irradiated with a defined power flux density S1, the pervasive power flux density is measured. The shielding attenuation is a non-dimensional measured variable in decibels (dB) and calculated as follows:

$$\mathrm{dB} = 10 \cdot \log_{10} \frac{S_1}{S_2}$$

dB	Attenuation
10	90 %
20	99 %
30	99,9 %
40	99,99 %
50	99,999 %
60	99,9999 %
...	...

Conformity

The measurement of the attenuation of electromagnetic waves between **40/600 MHz – 40 GHz** (selectively depending on the material properties) has been conducted in accordance with standard **IEEE Std 299™-2006** or following to standard **ASTM D4935-10**.

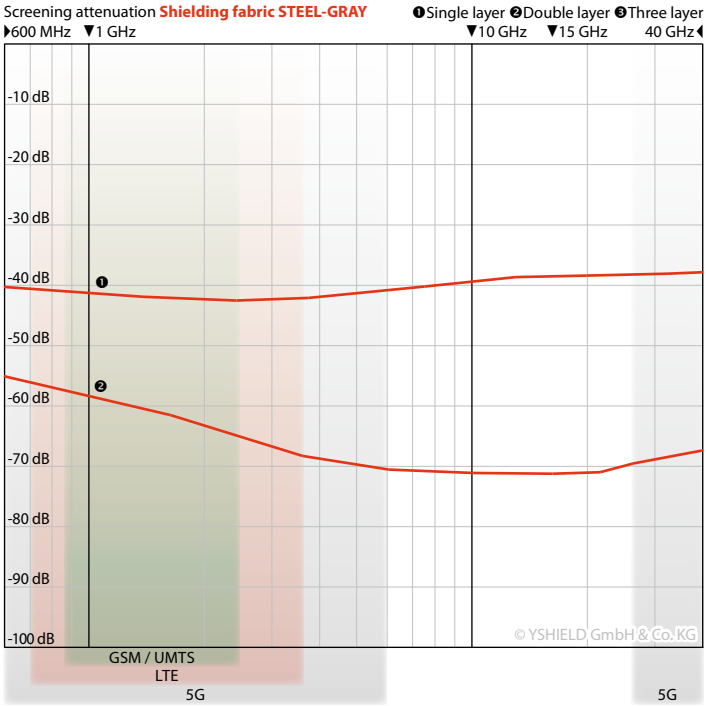
Place of measurement

In our own EMV laboratory according to prevalent established standards, for daily quality control and product development.

Measurement setup

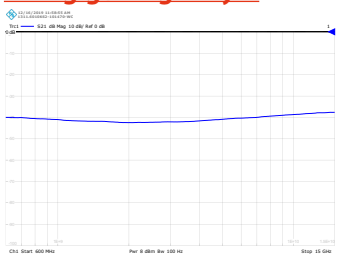
The measuring devices we use are two Vector Network Analysers Rhode & Schwarz **ZNB20** and **ZNB40**, with a measuring dynamics up to 140 dB.

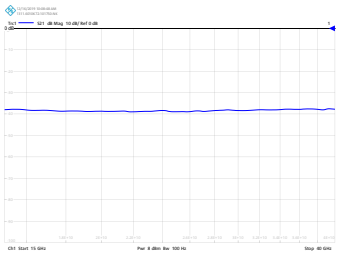
The antennas we use for IEEE Std 299™-2006 are broadband **horn antennas**. The antennas we use for ASTM D4935-10 are broadband **TEM cells** with radial polarisation.



600 MHz - 15 GHz | **15 GHz - 40 GHz**

Einlagig / Single layer





Zweilagig / Two layer