

## Miscellaneous shielding products

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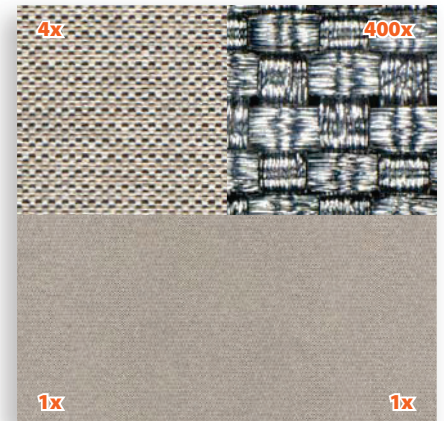
### Metallized polyester netting HNG80 (HF+LF)

Our recommendation!

#### Characteristics

HNG80 is a compact woven, **metallized polyester netting** for the shielding of high-frequency radiation (HF) and low-frequency electric fields (LF).

**Our standard product for easy bonding on walls, ceilings and floors!** This professional product is typically used for ministries of defence, banking houses, laboratories, etc. Now available for private use! Typical application **for bonding interior** on walls, ceilings, floors, as intermediate layer, for **drywall constructions**, loosely laid, etc.

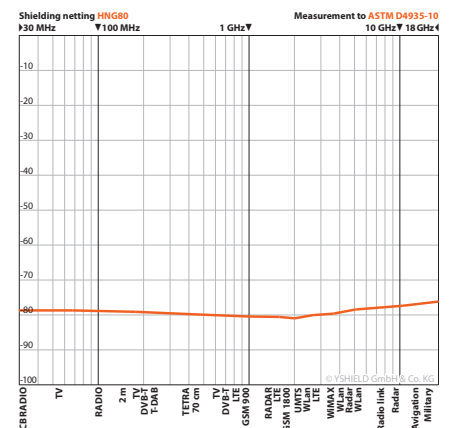


#### Technical data

- **Widths: 66 cm (HNG80-66), 130 cm (HNG80-130)**
- **Length: By the meter / 20 m roll / 100 m roll**
- **Attenuation: 80 dB**, two-layer 106 dB
- Weight: 80 g/m<sup>2</sup>
- Material thickness: 0.07 mm
- Color: Anthracite / Brown
- Tensile strength: Very good in both directions, 220 N/mm
- Materials: Polyester, copper, nickel, protection coating
- Surface conductivity: 0.02 ohm (square resistance R<sub>□</sub>)

#### Processing

In case of processing HNG80 as an intermediate layer we recommend using our dispersion glue DKL90 for adhesion. The wall and the backside of HNG80 should be coated with a paint roller. Insert the material wet on wet. Fix it manually (with disposable gloves) and press a gummed roller against the fleece to get a crease-free surface. Work quickly and strip by strip only so that the DKL90 glue does not dry. **A crease-free adhesion is only possible on perfectly level surfaces!** Structured surfaces (ingrain wallpaper, textured plastering) have to be smoothed. If that is not possible, we recommend using our shielding paint HSF54.



#### Grounding

Due to the highly conductive surface this material can be **contacted and grounded easy to shield low frequency (LF) electric fields**. For professional grounding we recommend our **grounding plug EST** for self laying application, or our **grounding strap EB in combination with our grounding set ES** for adhesive bonding with our dispersion glue DKL90.

#### Screening attenuation

The screening attenuation is **regularly tested in our own EMC laboratory**. We have measurement setups due to the following standards: **ASTM D4935-10, IEEE Std 299-2006, IEEE Std 1128-1998, ASTM A698/A698M-07**. Please find the test report at our homepage directly on the product page.

## Messprotokoll Schirmdämpfung

## Measurement report screening attenuation

### Material

Abschirmgewebe / Shielding netting **HNG80**

### Konformität

Diese Messung der Schirmdämpfung elektromagnetischer Felder von **30 MHz bis 18 GHz** wurde in Übereinstimmung mit dem Standard **ASTM D4935-10** durchgeführt.

### Ort der Messung

Schon seit Jahren lassen wir die Schirmdämpfung nicht mehr von externen Laboren durchführen. **Wir haben ein professionelles EMV-Labor nach gängigen etablierten Standards, wie z.B. ASTM D4935-10, IEEE Std 299-2006, IEEE Std 1128-1998, ASTM A698/A698M-07, etc. direkt bei uns im Haus.**

Das hat für uns viele Vorteile: Unsere Produkte werden nicht nur einmalig getestet, zur Qualitätssicherung vermessen wir jede Charge. Und selbstverständlich brauchen wir das Labor zur Entwicklung unserer eigenen Produkte.

### Messaufbau

Als **Messgerät** verwenden wir den professionellen Vektor-Netzwerkanalysator **Rohde & Schwarz ZNB20** mit einer Messdynamik von 140 dB bis zu 20 GHz.

Als **Antenne** für ASTM D4935-10 verwenden wir **modifizierte TEM-Zellen**, die selbst kleine Muster bis hinunter zu 30 MHz im **Fernfeld** messen können. Die Muster werden mit radialer Polarisation gemessen (alle Richtungen, nicht nur horizontal oder vertikal), was der Realität am nächsten kommt. Alle **elektrisch leitfähigen und dünnen Muster** können mit diesen Zellen perfekt vermessen werden.

### Conformity

This measurement of the screening attenuation of electromagnetic waves from **30 MHz to 18 GHz** was done in conformity with standard **ASTM D4935-10**.

### Location of measurement

Already since many years, the confirmation of attenuation is no longer carried out through external consultants. **We have a professional EMC-laboratory for any established engineer standards, as ASTM D4935-10, IEEE Std 299-2006, IEEE Std 1128-1998, ASTM A698/A698M-07, etc. at our disposal in-house.**

We take many advantages of this: Our goods are not only tested by a survey once, as for the reason of quality management each charge is measured again. Of course, we do need our laboratory for the development of own products.

### Measurement setup

The **instrument of measure** is a professional vector network analyzer **Rohde & Schwarz ZNB20** with 140 dB dynamic range up to 20 GHz.

The **antenna** for ASTM D4935-10 are **modified TEM-cells**, that can measure even small samples down to 30 MHz in the **far field**. The samples are measured with radial polarisation (all directions, not only horizontal or vertical only), what matches the reality most probably. All **electrically conductive and thin samples** can be measured perfectly with these cells.

