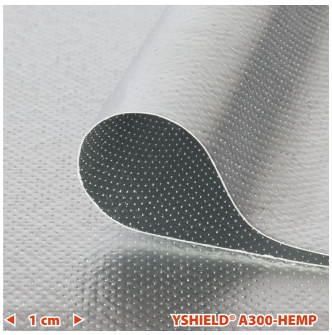
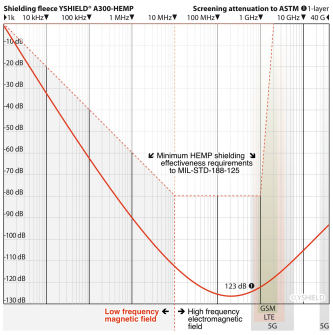
YSHIELD® A300-HEMP | Shielding according to military standard MIL-STD-188-125 | Width 90 cm | 1 meter

Double-laminated stable fleece for redundant high-end shielding. Highly permeable to water vapor. 123 dB. For indoor use. Width 90 cm.




YSHIELD® A300-HEMP


YSHIELD® A300-HEMP



YSHIELD GmbH & Co. KG
94099 Ruhstorf, Germany
www.yshield.com
info@yshield.de

Properties

A300-HEMP is a **stable fleece** that is **laminated on both sides with a thick micro-needled aluminum foil**. This provides redundancy and material thickness to meet the **military standard MIL-STD-188-125**. This military standard for **protection against very strong electromagnetic pulses** (High Altitude Electromagnetic Pulse = HEMP) serves to protect critical infrastructure facilities. This standard does not only include minimum shielding of high-frequency fields, but also magnetic fields from 1 kHz. **Produced in-house in Germany.**

The micro-needling punctures the material 4000.000 times per square meter, making it **highly permeable to water vapour.** The micro-holes are so small that they have no effect on the **sensational 123 dB shielding attenuation**. The high water vapour permeability is a novelty, as two very thick aluminum foils are normally just glued on top of each other to reach MIL-STD-188-125.

Application

In order to meet the requirements of MIL-STD-188-125, two-layer processing is required; the test report from EMCC DR. RASEK refers to a **two-layer installation**. For professional contractors, our A300-HEMP is a solid basis for a complete shielding concept in accordance with MIL-STD-188-125, in which there are many details to consider: overlaps, doors, windows, cables, ventilation, etc. For all shielding projects that do not require the low-frequency magnetic component, **one-layer** is completely sufficient, as redundancy is already provided with a single layer.

Technical data

- **Width: 90 cm**
- **Length: by the meter / 50 m roll**
- **Shielding attenuation: 123 dB**
- **sd value: 0.024 m** = very high water vapor permeability
- Surface weight: 300 g/m² / Thickness: 0.4 mm
- Color: silver / silver
- Tear resistance: 4400 (transverse) - 6800 (longitudinal) N/m
- Corrosion resistance: corresponds to that of aluminum
- Materials: aluminium, cellulose (FSC, EUTR), polyester fibers (OEKO-TEX® certified), adhesive powder (OEKO-TEX® certified)

Processing

Substrate: absorbent and chalky substrates must be pre-treated with our **GK5 primer**. **Bonding**: no cellulose adhesive adheres to aluminum; we recommend our **PSA pressure-sensitive adhesive**, which creates a self-adhesive surface (very good adhesion with wet and dry installation). **Overlap**: the sheets must be glued with a 5 cm overlap. The edges of the sheets must also be sealed with a shielding tape (with a highly electrically conductive adhesive); we will soon offer a tested tape. **Contact materials**: Due to the aluminum layer, a neutral pH value of pH 4-9 must be ensured for all direct contact materials during processing.

Grounding

This product with an electrically conductive surface **has to be integrated into the functional-equipotential bonding (FEB)**. Please find suitable grounding accessories under "Grounding".

Shielding attenuation to MIL-STD-188-125

The conformity of this product with MIL-STD-188-125 has been tested by the accredited laboratory EMCC DR. RASEK accredited laboratory. This product meets the minimum shielding requirements for **magnetic fields from 10 kHz to 10 MHz and high-frequency fields from 10 MHz to 1 GHz**. In addition, the high-frequency fields from 1 GHz to 40 GHz were determined in accordance with ASTM D4935-10.

Laboratory & expert report of shielding attenuation up to 40 GHz

We have already invested in our **own professional EMV laboratory** years ago. We not only use it to create our laboratory screening reports but also to check each batch daily. Additionally, we have all our products checked by an **independent, well-respected expert**. Double checked maximum safety. **Please find the reports above at the downloads**.