

## Laboratory report screening attenuation

### Test object

#### Shielding paint

**HSF54** with paint roller. Thick 4 m<sup>2</sup>/l + Thin 8 m<sup>2</sup>/l

#### Test date

2021/05/11

#### Guarantee

**We bindingly guarantee the shielding attenuation of a product with this laboratory report.** The measuring curves represent the mean value of all tested charges, within a tolerance range of +/- 2 dB.

#### Place of test

Own professional EMC-laboratory according to international standards, for daily quality control and product development.

#### Conformity

The measurement of the attenuation of electromagnetic waves from **600 MHz to 40 GHz** has been performed in close accordance with standards **IEEE Std 299™-2006** or **ASTM D4935-10**.

#### Test setup

Measuring devices: Vector Network Analyzers Rohde & Schwarz **ZNB20** and **ZNB40** with a measuring dynamics up to 140 dB.

Antennas: For IEEE Std 299™-2006 **horn antennas** with horizontal/vertical polarisation inside and outside a test chamber. For ASTM D4935-10 **TEM cells** with radial polarisation.

**Test implementation** Irradiation with the power flux density  $S_1$ . Measuring the pervasive power flux den-sity  $S_2$ . The shielding attenuation is a non-dimensional measured variable in deci-bels (dB):

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

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

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

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