

The coating variants :

At reasonable prices the standard technology applies layers of either copper with nickel-chromium-corrosion protection or aluminium at 2.5 (Mikro m). Compared with aluminium, the copper coating has got several advantages such as a stronger screening effect at a comparable thickness of layers; corrosion resistance even under extreme conditions; less transitional resistance at the casing joints and solderability. Other coating metals are available on request. The thickness of layers can reach up to 5 (Mikro m) for aluminium and up to 3 (Mikro m) for copper. The actual thickness of layers varies according to the orientation of the surface towards the vaporization sources.

Varianten:

EMVatrend® Standard	Al-layer 2,5 µm
EMVatrend® Al-Plus	Al-layer bis 5 µm
EMVatrend® Protectal	Al-layer + corrosion protection
EMVatrend® Cunicro	Cu-layer und NiCr-protective layer

The screening layers which have been steamed on can be supplemented with varnish if necessary, if all the surfaces were not sufficiently coated during the vapor-blasting procedure. Alternatively to the high vacuum metallization, a complete varnish coating for all surfaces is possible.

Electric characteristics

The layers' screening effects depend directly on the layers' surface resistance. This value, which does not depend on the thickness of layers, is calculated: Surface resistance (W/o) = electric conductivity (1 /W Mikro m) / thickness of layers (Mikro m) The lower the resistance, the higher the screening effect. The comparison with other procedures of surface metallization shows that the layers, produced with the high vacuum procedure, are one of the most efficient. Graphite Copper Nickel Silver Illustration: examples for attenuation of EMVatrend-layers

procedure	sheet resistance[Ohm/□]
High vacuum vapor-blast process	
Al 2,5 µm	0,02
Al 5 µm	0,007
Cu 2,5 µm + NiCr 0,1 µm	0,015
Varnish	
Graphit- 25 µm	20 ... 30
Kupfer- 25 µm	0,5
Nickel- 25 µm	2
Silber- 25 µm	0,01 ... 0,04
Blow torches 50 µm	0,01 ... 0,13