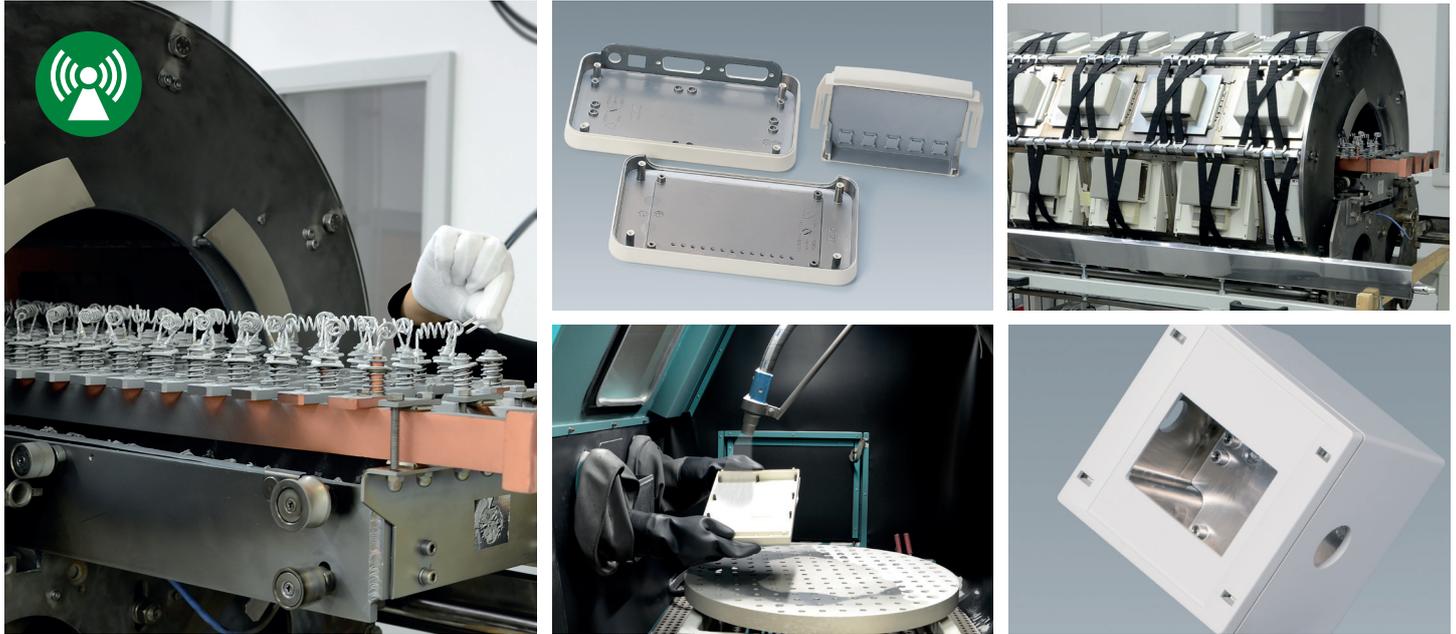


RFI/EMI ALUMINUM COATING



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Many of our standard enclosures can be aluminium-coated on the inside using our vapour-plating facility. The coating process takes place in a high vacuum. The aluminum is vaporized in a short time and deposited onto the plastic surface.

BASICS

Aluminum coating on enclosures is an important component in complying with all RFI/EMI guidelines and regulations, but it is not always enough. Further measures may be required to achieve the best results in terms of RFI/EMI protection.

System VTD coating layer with several drums

Evaporation material High-purity aluminum 99.98%
Material no./designation: EN AW-1098 / EN AW-Al99.98

Pre-treatment/adhesion To ensure sufficient adhesion, a sandblasting process is usually carried out before aluminum vapor deposition; exceptions are permitted if specified. In the coating process itself, an additional pre-treatment phase involving annealing is integrated to increase the surface energy.

Masking Special masking is required for each part to ensure that only the inner surfaces are coated. We have such masking in stock for many of our housings. The parts are then clamped securely in this masking.

Special masks with specific contour coverage or partial coverage can be manufactured with a tolerance of +/- 0.04". This incurs additional special fixture costs. Available on request.



Coating thickness The layer thickness in the base area is at least 2.5 µm. Higher layer thicknesses are also possible to increase the shielding effect. Please inquire.

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TESTS

Adhesion test

The adhesive strength is tested for each batch and each side using a tape test (adhesive force 12 N/cm). No material may come off.

Testing of surface resistance/continuity test

BA surface resistance/continuity test is performed on each batch, measured value < 30 ohms. In the flat bottom area, the measuring pins are to be placed at a distance of approximately 3.94", and at the greatest possible distance for smaller enclosures. When measuring in the base area on each side surface, one measuring pin is placed in the base area and the other measuring pin in the side area.

Special tests

Must be carried out by the customer.

