

CONDUCTIVE NICKEL COATING 3800N

For EMI/RFI shielding of plastic housings and plastic components



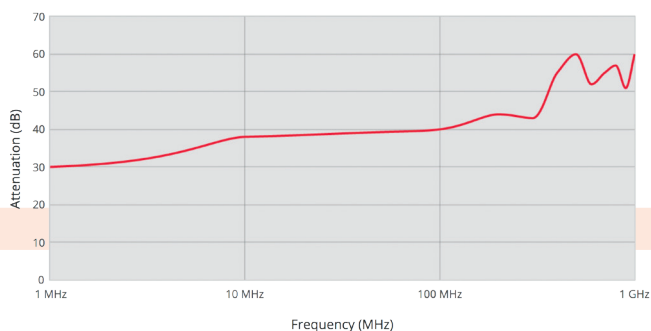
Applying electrically-conductive nickel coating 3800 series is a fast and easy method for EMI/RFI shielding/screening of plastic enclosures/housings. Your electrostatically sensitive applications can be shielded by using an electrically conductive paint containing nickel, copper or silver.

The paint comes in aerosols (Part number 3801) for easy use, but can also be supplied in tins of 5 liters, 7 kg (Part number 3805) and tins of 20 liters, 28 kg (Part number 3820) if you need larger quantities. Materials such as iron-chromium-aluminum and molybdenum disilicide are used for higher temperature applications.

Some oxide ceramics are used as conductors and semi-conductors for specialized applications. To fulfill the requirements concerning the limits of immunity and emission to interference, plastic housings and components need to be coated either fully or selectively with an electrically conductive coating. The nickel-conductive coating is contained in an air-drying acrylic resin.

It is recommended that an grounding connection is made to achieve maximum shielding performance. A suitable material for this is Part number 3201 Copper shielding tape which can simply be stuck onto the coated surface or over-sprayed with the electrically-conductive nickel coating. The coating, once it has been applied, has a mat gray textured finish.

SHIELDING EFFECTIVENESS



BENEFITS

- Available in aerosol for prototype and small runs (Part number 3801)
- Low surface resistivity of $0.9\Omega/\text{sq}$ yielding high attenuation
- Enables speed and easy coverage of complex shapes
- Delivery from stock
- Cost-effective solution
- Compatible with most plastics and metal substrates, the paint meets the requirements of BS IEC 61340-5-1:2001 and suitable for use in Atex hazardous environments.

PHYSICAL PROPERTIES

Color	Gray
Flash point (Abel closed cup- method IP 33/59)	25 °C
Recommended dry film thickness (ASTM D 4138-82)	50 microns (2 thou)
Specific gravity	1.5 g/cc
Coverage per liter at 50 microns	7-10 square meters
Drying time: touch	15 minutes
Drying time: full	12 hours
Adhesion (BS 3900 E6)	Excellent
Pencil hardness (ASTM D3363-74)	H
Shelf life	12 months
Surface resistivity at 50 microns (2 thou) ASTM D257	0.5 Ohms/square or less
Viscosity when thinned 1:1 with 3800N thinner	0.6p on a cone & plate, 27-32secs on a B4 flow cup
SE(dB)	50-55
UV-resistant	Yes

HOW TO ORDER

Part number

3801N: Aerosol 400 ml
3805N: Tin 5 liters (7 kg)
3820N: Tin 20 liters (28 kg)