

Section A

CONDUCTIVE NICKEL COATINGS (POLYURETHANE)

42-204NP

DESCRIPTION

Our 42-204NP (grey) coating contains a stabilised nickel loading in a three component polyurethane system. This coating provides effective EMI/RFI shielding and is recommended for use above 10MHz. The nickel based system is an effective substitute for silver, when the highest conductivity properties are not required. The cost per sq. metre per dry film thickness (DFT) for EMI/RFI shielding is much lower, and this coating may also be used for electro-static discharge applications.

CHARACTERISTICS

This formulation is highly conductive; absorbing and dissipating the electrical vector of EMI radiation. An important feature is the attenuation of the magnetic vector; this feature enables the coating to prevent radiation emission from an EMI source and is most effective, when used as close as possible to such source.

Excellent oxidation resistance is ensured by special nickel treatment process. 42-204NP provides good chemical resistance and adhesion properties for the coating, which in turn exhibits outstanding resistance to moisture, abrasion and weather.

Properties		42-204NP Polyurethane based	
No. of Components.		3	
Surface resistivity @ 0.025mm(0.001") DFT		<1.5 ohms/square	
Shielding Capacity (Attenuation)		40-60 dBs	
Recommended dry film thickness (DFT)		0.05mm (0.002")	
Nickel (by weight in dry film)		77-82%	
Theoretical coverage @ 0.050mm (0.002")		5 sq. M. / ltr	
Weight per litre		1.52kgs	
Drying Time @ 20°C (70°F) Touch & handle		30-60 mins	
Recoat		30-45 mins	
Maximum Conductivity		72-120 hours	
Colour		Grey	
Mixing Ratio		6:1:1	
Impact resistance		Excellent	
Adhesion to metal, ceramics & plastics		Excellent-thermosets	
Chemical resistance		Excellent	
Weather resistance		Excellent	
Shelf Life (unopened containers)		6 months	
Thinner/Reducer		44-207	

APPLICATION-MIXING

The base component must be thoroughly shaken to disperse the nickel pigment. Combine the base and the hardener for the PU system. Add the respective thinner and stir well. Adjust the thinner to achieve the correct viscosity.

USAGE

42-204NP

Excellent adhesion particularly for thermosets, such as polycarbonates, skinned urethane foams, and GRP. For thermoplastics, coat a small test area to check for environmental stress cracking, which can be caused by the solvents present.

EQUIPMENT

Apply with a conventional spray gun at a pot pressure of 6-10 p.s.i. And 35-55 p.s.i. Atomising pressure. A pressure pot equipped with air agitator should be used to prevent settling-out.

STOCK : This product is normally available ex stock in 5 Litres kits. Refrigeration is recommended to extend shelf life.