

E-Shield 6037

Electrically Conductive Coating

Typical Properties			
Property	Unit	Value	Test Method
Color / Component		Silver-Copper	Visual
Viscosity at 25°C	Second	10 - 18	EZ Cups (ASTM D3794)
Density	Gram /cc	1.1	ASTM D792
Carrier Solvent		IPA & MEK	
Solid Content	Weight %	> 28 %	TGA
Property as Cured			
Color		Silver-Copper	Visual
Hardness	Shore D	> 80	ASTM D2240
Sheet Resistance (1 mil thick film)	Ohm / in ²	< 0.02	ASTM D257
Shielding Capacity (1 to 2 mil thick coating)	dB @ < 500 MHz	80 to 100	IEEE Standard
Coefficient of Thermal Expansion	ppm/C	< 60	IPC-TM-650
Thermal Conductivity	W/m-K	> 4	ASTM D5470
Temperature Stability	°C	- 80 to 180	TGA
Cure Profile (As 1 mil thick film)			
Dry to touch at 25°C	Min	1 to 3	UA-ITM
Fully Dry at 25°C	Min	6 to 8	UA-ITM
Shelf Life (In originally sealed container)	Month	12	UA-ITM

These figures are only intended as a guide and should not be used in preparing specifications.

Processing Instruction

Caution! E-Shield 6037 contains Isopropanol alcohol (IPA) and methyl ethyl ketone (MEK) as solvent carrier. Please apply the material with sufficient ventilation and air circulation.

For the package in a container, to ensure homogeneity of the material, the components must be stirred thoroughly before they are removed or processed in order to uniformly disperse any filler that might have settled during storage. Further dilution of the material is feasible with IPA or MEK. If use IPA, please add less than 20% in wt.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives Inc.

Storage

E-Shield 6037 has a shelf life of at least 12 months when stored at ambient condition in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives, Inc.

Characteristics

E-Shield 6037 is a solvent based, silver-coated copper conductive coating designed for EMI / RFI shielding applications. It dries out quickly in minutes in open air, which is desirable for high volume production. After drying, it forms a coating of 0.5 to 1 mil thick thin film with strong bonding and abashing resistance on various glasses, ceramics, metals, and plastics. The dried film provides superior EMI / RFI shielding barrier and electrical conducting layer. E-Shield 6037 can be applied by spraying, brushing, dipping, spin-coating, or painting.

Special Features and Benefits

- Fast drying speed for high volume production
- High electrical conductivity
- Superior EMI / RFI shielding
- Strong adhesion to various substrates
- Excellent abrasion resistance

Typical Applications

- EMI / RFI shielding
- Conductive coating
- Shielding for aerospace electronics
- Grounding connection
- Control electrostatic discharge
- Protective coating

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The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.