CHOMERICS *Leader in EMI Shielding and Thermal Management*

CHO-SHIELD 576®

PLATABLE SILVER EPOXY COATING

DESCRIPTION

CHO-SHIELD® 576 coating is a two component, silver-filled, highly conductive epoxy paint designed to provide EMI shielding when applied to a dielectric plastic substrate. This coating was specifically developed as a variant of CHO-SHIELD 596.

CHO-SHIELD 576 dries to the touch in less than 1 hour at room temperature and attains full chemical resistance after 1 week at room temperature. However, the best electrical properties are achieved by curing at elevated temperatures.

PERFORMANCE

CHO-SHIELD 576 is first sprayed onto a plastic substrate, and further plating operations may follow. The full stack up of plating and coating will meet strict adhesion requirements, equivalent to ASTM D3359 with a rating of 5A after exposure to 95% RH at 65ºC for 24 hours and thermal cycling from one hour at -57ºC to one hour at 95ºC for a total of four cycles.

Table 1 – Typical Properties	
Nominal Specific Gravity	1.80
Volume Resistivity*	0.06 ohm/sq.
Spray Viscosity (No. 2 Zahn Cup)	15 seconds
Pot Life at 24°C (75°F)	8 hours
Shelf Life at 24°C (7°F)	9 months

(*) Based on a 1 hour room temperature drying period followed by 1 hour at 250°F (121°C) cure.

ORDERING INFORMATION

Product	Part Number	Unit Size
CHO-SHIELD® 576	52-01-0576-0000-5	5 of 1 lb. (454 g)

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APPLICATION INSTRUCTIONS

Mix parts A and B in the ratio of 100 parts of A to 27.5 parts of B and 63.6 parts of toluene by weight. Always add parts B & toluene to the part A to minimize waste.

Apply the coating with an air gun such as a DeVilbiss Model EGA 502 with a 66SA air nozzle and 395 fluid nozzle. The spray viscosity range is typically 15 seconds (No. 2 Zahn Cup). The paint should be ready to use as mixed. Note: "Over-thinning" degrades electrical performance. Consult Chomerics Applications Department for assistance as required.

Apply the coating to a 0.6 to 1.0 mil thickness. (A wet film of 2 mils is approximately 1 mil when dry.) A 30-minute solvent flash is required between coats. The last coat should dry at room temperature for at least one hour prior to any elevated cure.

Four cure schedules are listed below:

Cure 1: 2 hour at RT and 0.75 hour at 150°F, followed by 0.75 hour at 210°F (recommended), or

Cure 2: 1 hour at 75°F and 1 hour at 250°F, or

Cure 3: 1 hour at 75°F and 6 hours at 150°F, or

Cure 4: 168 hours at 75°F.

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