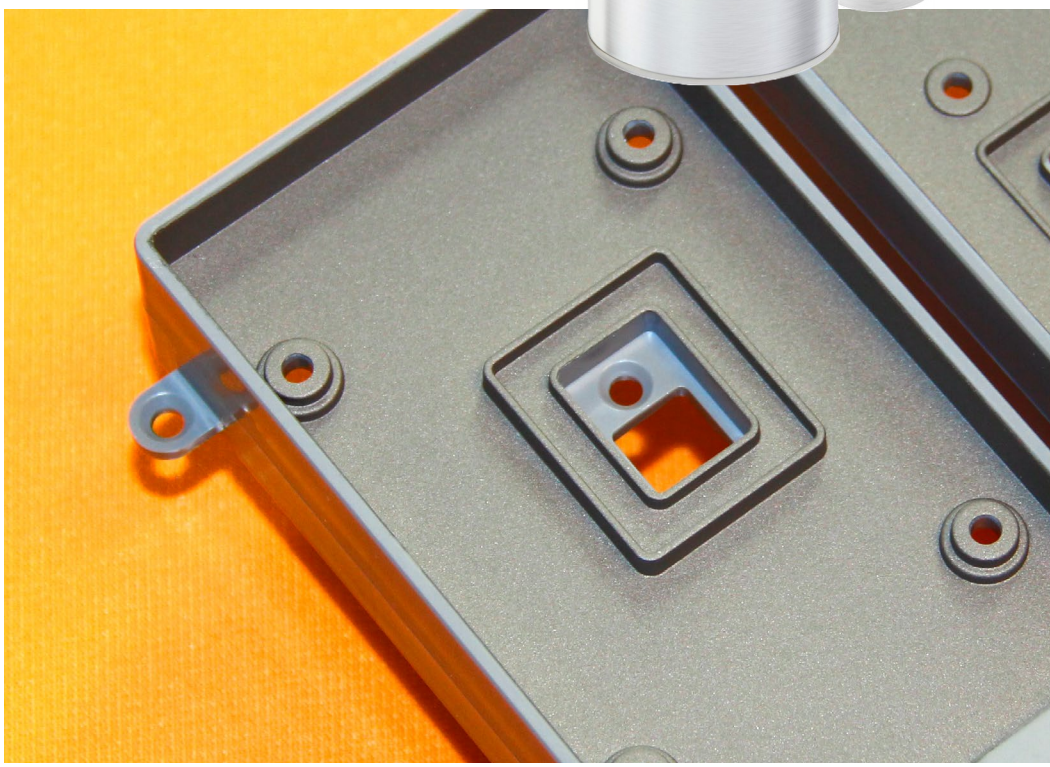
CHO-SHIELD® 568

Electrically Conductive Platable Nickel Epoxy Coating



Parker Chomerics CHO-SHIELD 568 is a two component, nickel filled conductive epoxy coating specially formulated to accept an electrolytic plating layer. The conductive nickel filler's size and morphology are carefully chosen to provide multiple nucleation sites which promote the formation of a continuous and uniform electrolytic plating layer. The resulting plating and coating system forms a robust conductive layer over a non-conductive plastic substrate. Advantages of this type of plating/ conductive coating systems include: the ability to put down multiple metal layers with minimum thickness build-up, good adhesion to plastic and composite substrates, and the formation of a highly conductive solderable layer on a dielectric plastic substrate.

Product Features

- Two component
- Pre-measured kit allows easy mixing of components in one container
- Nickel flake filler
- Low cost conductive filler. Provides adequate surface conductivity for electrolytical plating of plastic or graphite composites
- Epoxy coating
- Strong, tough, and durable coating

Typical Applications

- Military and commercial components which require a highly conductive uniform metal coating applied to a dielectric plastic or composite substrate
- Seed layer on plastic for electrolytic plating
- Grounding for plastics or composite parts
- Lightening strike protection

Contact Information

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CHO-SHIELD® 568 Product Information

Typical Properties	Typical Values	Test Method	
Polymer	Epoxy	N/A	
Filler	Nickel	N/A	
Mix Ratio (A/B by weight)	100 / 27.7	N/A	
Color	Gray	N/A	(Q)
Spray Viscosity	17 to 23 seconds	Zahn Cup Number 2	(Q)
Surface Resistivity at 0.002 inches dry film thickness	10 ohms / square	CEPS-0002	(Q/C)
Recommended Dry Film Thickness	.002" (50 µm)	N/A	
Wet Density	1.7	ASTM D792	(Q/C)
Continuous Use Temperature	-40 to 150°C (-40 to 302°F)	N/A	(Q)
Pot Life	8.0 hrs	N/A	(Q)
Drying Time - Room Temperature Tack Free	1 hour @ 21°C (70°F)	N/A	
Drying Time - Room Temperature Full Dry**	1 week @ 21°C (70°F)	N/A	
Drying Time - Elevated Temperature Full Dry	1.0 hr @ 121°C (250°F)	N/A	
Calculated VOC	523 g /L	Calculated	
Theoretical Coverage at Recommended Dry Film Thickness	0.051 ft^2/gram 0.0047 m^2/gram 321 ft^2/gallon	N/A	
Shelf Life at 21°C (70°F), unopened, from date of manufacture	9 months	N/A	(Q)

Notes: N/A – Not Applicable, (Q/C) - Qualification and Conformance Test, (Q) - Qualification Test
* This test Method is available from Parker Chomerics.
** Cure is sufficient for handling in 24 hours. Full specification properties are developed after 1 week (168 hours) at room temperature.

CHO-SHIELD® 568 Application Information

Mix parts A and B in the ratio of 100 parts of A to 27.7 parts of B and MEK. The MEK should be added to achieve a spray viscosity of 17 to 23 seconds (using a Zahn #2 cup). Part B and the MEK should always be added to the part A to minimize waste. To apply the coating, use a standard HVLP spray gun with approximately 20 to 40 psi (138 to 276 kPa) atomizing air and a fluid nozzle with a minimum orifice diameter of 0.040 inches (1.016 mm).

The coating should be ready to use as mixed. Apply the coating to a 2-mil cured thickness. 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. Consult Parker Chomerics Applications Department for assistance as required.

Table 2 - Thinning for CS 568 Application

Weight of CS 568 Part A (grams)	Weight of CS 568 Part B (grams)	Weight of MEK (grams)
100	27.7	Refer to Apps Info
1120*	310	Refer to Apps Info

* Full kit of 52-04-0568-0000

NOTE:
Before spraying CHO-SHIELD 568, age the compound for at least 1 hour at room temperature after mixing.

CHO-SHIELD® 568 Ordering Information

Product	Weight (grams)	Packaging	Part Number	Primer
CHO-SHIELD 568	1430	2 component kit A: 1 quart aluminum can B: 625ml aluminum bottle	52-04-0568-0000	Not Required

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.