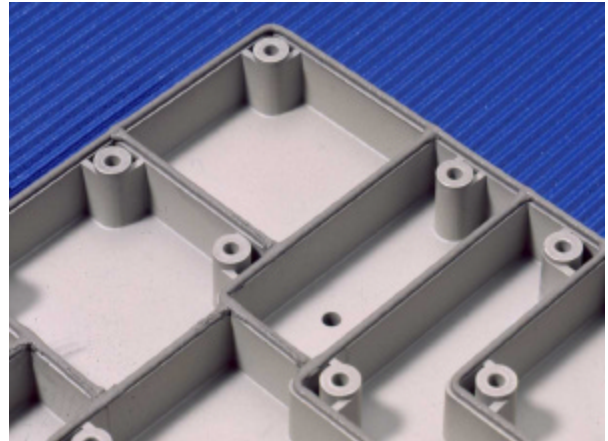


Preliminary Product Information

DESCRIPTION

Cho-Form 5541 is a one component, thermally cured, electrically conductive, form-in-place EMI gasketing material. This formulation contains nickel-plated graphite (Ni/C) particles dispersed in a silicone elastomer. The material has been specifically developed as a corrosion resistant material that exhibits excellent long term stability characteristics and is designed to meet Underwriters Laboratories UL 94 V-0 flammability rating. Specific applications for this material include cellular base station equipment and other equipment needing long term stability of shielding materials. The material offers very good shielding effectiveness and excellent galvanic corrosion resistance when dispensed onto cast aluminum substrates. A specific advantage is the ability to be dispensed onto bare, unplated aluminum substrates and offer long term shielding performance. Cho-Form 5541 has been developed to offer continuous shielding performance in long term aging environments that include but are not limited to: heat aging at 85° C, temperature/humidity conditioning at 85° C / 85 % RH as well as urban gas and salt fog exposure.

Cho-Form™ 5541 Corrosion Resistant Form-in-Place EMI Shielding Material



FEATURES

- **One component thermally cured material**
- **Continuous shielding performance in severe environments**
- **Excellent corrosion resistance**
- **UL 94 V-0 Flammability**
- **No solvent in formulation – VOC free**
- **Designed for bare aluminum substrates to avoid plating**
- **Low material and installation costs**

TYPICAL PROPERTIES	TEST METHOD	CHO-FORM 5541
Conductive Filler	-----	Nickel-plated graphite (Ni/C)
Elastomer Binder	-----	Silicone
Solvent Level - Wet	-----	None
Cure Mechanism	-----	Thermal: 150°C for 30 minutes
Volume Resistivity	Chomerics MAT-1002	
Initial		0.02 ohm-cm
Aged		0.04 ohm-cm
Hardness	ASTM D2240	79 Shore A
Tensile Strength, minimum	ASTM D412	450 psi
Specific Gravity	ASTM D792	2.40
Compression Set	ASTM D395 Method B 22 hours 85°C	40%
Flow Rate	Chomerics – MAT-1200	0.85 – 1.15 grams/minute
Viscosity	-----	1.7 x 10 ⁶ cPs
Adhesion	Shear – Cho-Form WI038	>12 N/cm
Shielding Effectiveness 200 MHz to 10 GHz	Chomerics TP08	> 70 dB
Corrosion Resistance	Chomerics TM-100 168 hours/ 5% NaCl	12 mgs
Flammability Rating	UL 94	V-0
Max Operating Temperature	-----	125°C

Handling and Curing Of Material

Cho-Form 5441 is a one component thermally cured material. Recommended cure temperature is 150° C for 30 minutes. The full cure cycle of 30 minutes allows for immediate handling, and performance of necessary QC tests. The use of this thermally cured, form-in-place material reduces the need for dispensed parts storage space, thereby reducing inventory costs. This feature also allows for immediate packaging and shipment of parts to their final destination for subsequent integration into the equipment assembly process.

Design and Prototyping

Application and design assistance is available to prospective customers. The specific focus of the assistance is on the examination/identification of design issues with regard to the substrate. These design issues include: enclosure material and surface finish, available gasket placement area, part flatness, transitions in the layout of the dispensed bead, obstructions in the design of the enclosure to the unimpeded travel of the dispense needle, and z direction dispense needs.

Application Engineering support is available to assist customers with; gasketed parts packaging design, part fixturing/palletizing for robotic dispense, and establishment of appropriate dispensed parts QC test procedures for resistance and adhesion, as well as bead placement and dimensioning. Prototype dispensing is available on sample parts or sample coupons for customer evaluation.

Packaging

Cho-Form 5541 is packaged in 6 ounce (180cc) plastic cartridges containing 350 grams per cartridge. Other packaging options can be made available at customer request. Customer sampling of wet material is typically provided in 30cc syringes.

Typical Chomerics part numbering is as follows:

19-26-5541-0350 is 350 grams of 5541 in a 6 fluid ounce (180 cc) high density polyethylene tube.

Material Dispensing

Cho-Form 5541 is easily dispensed from a variety of commercially available gasket dispense systems. In addition to Chomerics' existing worldwide network of Cho-Form applicators, our Cho-Form applications group can provide support for material dispense needs worldwide for customers wishing to utilize their own or other dispense equipment.

TB5541
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