

Corrosion Resistant Form-in-Place EMI Shielding Material

DESCRIPTION

CHOFORM® 5550 is a one component, thermal cure, electrically conductive, form-in-place EMI gasketing material containing nickel-plated graphite particles dispersed in a silicone elastomer. The material is designed for ease of dispensing and increased flow rates for robotically dispensing onto metal castings. CHOFORM 5550 offers low hardness, excellent compression/deflection performance and low compression set. Superior performance in adverse environments makes this material an excellent choice for applications requiring long term reliability.

HANDLING AND CURING OF MATERIAL

CHOFORM 5550 is a one component thermally cured material. Recommended cure temperature is 150° C for 30 minutes. Recommended minimum bead size is 0.038" X 0.045 (0.96mm X 1.14mm) Recommended maximum bead size is 0.065" X 0.077" (1.65mm X 1.96mm)



TABLE 1 - CHOFORM 5550

Property	
Filler	Ni/C
Resin	One Part Silicone
Cure Mechanism	Thermal (Addition)

TABLE 2 - QUALITY CONFORMANCE TESTS

Property	Method	Typical Values
Volume Resistivity Initial Aged	CHO MAT-1002	0.05 ohm-cm 0.10 ohm-cm
Hardness	ASTM D2240	56 Shore A
Tensile Strength	ASTM D412	200 psi
Elongation	ASTM D412	170%
Compression Set	ASTM D395 Method B 22 hrs. @ 85°C	25%
Specific Gravity	ASTM D792	1.95
Flow Rate	.047" diameter needle (EFD 5116TT-B) @ 60 psi	8.3 gm/min

Part Numbering System				
WW - XX – XXXX - YYYY - Unit Size				
19	26	5550	600	600 grams in an 11 fluid oz. (0.33 liter) aluminum cartridge
19	26	5550	650	650 grams in a 12 oz. plastic Semco® cartridge

TABLE 3 - CHOFORM 5550 CURE SCHEDULE

Cure Cycle	Time/Temperature
Properties Measurement – Resistance/Adhesion	30 minutes @ 150° C

TABLE 4 - QUALIFICATION TESTS

Property	Method	Typical Value
Adhesion – Shear Unprimed Al	CHOFORM WI038	8 N/cm
Adhesion – Shear Primed Al*	CHOFORM 1038	12 N/cm
Accelerated Aging 85°C/85%RH Electrical Through Resistance vs. Exposure time	ASTM D991 Initial 48 hrs. 1000 hrs.	3.0 mohm-cm 5.0 mohm-cm 105.0 mohm-cm
Deflection vs. Load	ASTM D575 Modified 30% 50%	18.2 lb./linear inch 90.7 lb./linear inch
Flammability Rating	UL 94	Designed to meet UL 94 V-0
Shielding Effectiveness 1 GHz to 10 GHz	CHO TP08	> 80 dB
Galvanic Corrosion	CHO TM-100 168 hrs./5% NaCl	21 mg
Shelf Life	N/A	6 months @ 0°C
Max. Use Temperature	N/A	125°C

* Primed with 25% Wacker ELASTOSIL® G790 Primer in IPA

TB 1020 EN 02/07

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