PRELIMINARY PRODUCT DATA SHEET

CHOMERICS

LEADER IN EMI SHIELDING INNOVATION, DESIGN AND TEST TECHNOLOGY

Cho-Form® 5526 and 5528
Form-in-Place EMI Shielding Materials

Cho-Form 5526 and Cho-Form 5528 materials provide low gasket closure force requirements with no loss of compression recovery properties. These room temperature cure (moisture cure) conductive elastomers provide similar adhesive, mechanical and EMI shielding performance to heat cure Cho-Form elastomers. Both 5526 and 5528 materials are designed for use on a variety of substrates, ranging from metallic casting alloys to shielding coatings on injection molded housings. They are ideal for use on thin wall PC/ABS parts. Both gasket materials are ideal for dispensing with automated equipment.

Features and Benefits

- Room temperature / moisture cure system
- Low closure force requirements
- High compression recovery properties
- VOC free (Cho-Form 5528)
- Low material and installed costs

Cho-Form 5526 material combines a room temperature (moisture cure) silicone resin with silver particle filler technology to provide low surface contact electrical resistance, excellent adhesion, and soft, easily compressible gaskets. Its superior electrical properties makes 5526 an excellent choice for higher performance grounding applications, or for use on semi-conductive surfaces. 5526 material's one-component, silicone-based resin technology delivers soft gaskets (typically 35 Shore A). The material provides strong compression recovery properties, and its room temperature cure makes 5526 material appropriate for metallic alloy or plastic housings.

Cho-Form 5528 material combines Chomerics' silver-plated-copper particle technology with a room temperature (moisture cure) silicone resin. The resin system provides a soft gasket while maintaining excellent electrical, mechanical and shielding properties. This allows lower closure forces than other FIP (form-in-place) conductive elastomer materials. Its room temperature cure allows 5528 material to be used on metallic alloy or plastic housings. The 5528 formulation maintains the excellent compression recovery properties normally found only in thermal cure systems. It is a zero VOC material, requiring no special handling procedures or mechanical ventilation for use. Cho-Form 5528 material is available in two package sizes: 850 grams of material in a 12-ounce metal cartridge (P/N 19-26-55128-0850), or 2.50 kilograms in a one-liter metal canister (P/N 19-26-55128-2500). The material has a six-month shelf life under ambient conditions (21±5°C).

Processing of Cho-Form 5526 and 5528 Materials

Both materials typically cure in approximately 24 hours at 21ºC (ambient) and 50% relative humidity (RH). However, the cure can be accelerated to allow for packing of completed units in non-gasket-contacting packaging materials in as little as 30 minutes at 65ºC and 85% RH.

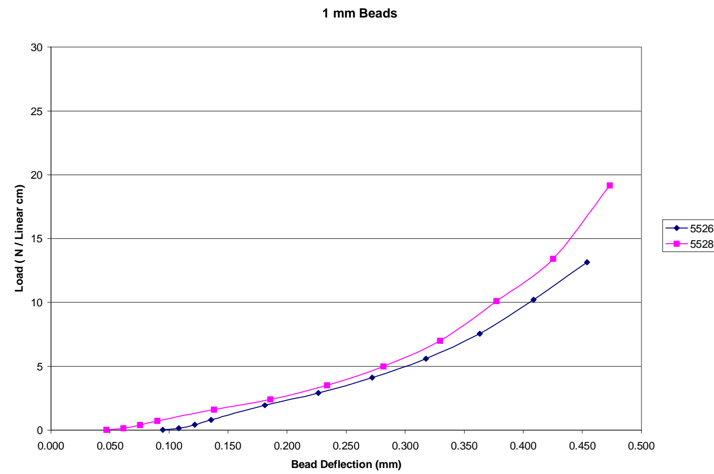
Applications Requiring Lower Compression Forces

Chomerics' patent pending waveform bead shape, which employs ¼ wavelength cut off slots, can reduce required closure forces by 20 to 40%.

Shielded Plastic Housings

When these Cho-Form materials are used with Chomerics' Cho-Shield® 2052 conductive coatings, Chomerics can provide a single resource for shielded plastic housings. All Cho-Form materials can be applied as beads with cross sections as small as 0.5 mm high and 0.66 mm wide. If design space allows, a 0.85 mm high by 1.0 mm wide bead is recommended, which will deliver C_{pk} values of >1.33. Bead location accuracy within 0.1 mm is possible with the Cho-Form dispensing system. For more information on these products, contact Chomerics Applications Engineering or Cho-Form Business Unit Engineering at (781) 935-4850.

Compression/Deflection Example



Property	Test Procedure	Cho-Form 5526	Cho-Form 5528
Filler	N/A	Ag	Ag/Cu
Resin	N/A	One Part Silicone	One Part Silicone
Solvent Level-Wet	N/A	5-8%	None
Cure Mechanism	N/A	Moisture	Moisture
Cure Schedule(s)	N/A	• 72 hrs @ 21°C & 10 %RH • 24 hrs @ 21°C & 50% RH	• 72 hrs @ 21°C & 10 %RH • 24 hrs @ 21°C & 50% RH
Handle Time	Minimum time to obtain compression set values	• 20 min @ 65°C & 85% RH • 40 min @ 40°C & 50% RH • 55 min @ 30 °C & 50% RH	• 20 min @ 65°C & 85% RH • 40 min @ 40°C & 50% RH • 55 min @ 30 °C & 50% RH
Volume Resistivity Initial Aged	MIL-G-83528 Para. 4.6.11	.010 ohm-cm (max) .02 ohm-cm (max)	.035 ohm-cm (max) .070 ohm-cm (max)
Hardness	ASTM D2240	40 Shore A	35 Shore A
Tensile Strength	ASTM D412	80 psi (min)	80 psi (min)
Elongation	ASTM D412	45% (min)	45% (min)
Specific Gravity	ASTM D792	3.27 (typical)	2.69 (typical)
Compression Set	ASTM D395 Method B 22 hrs 85°C	35% (max)	35% (max)
Adhesion	Shear	>12 N/cm (typical)	>12 N/cm (typical)
Shielding Effectiveness 200 MHz to 12 GHz	MIL-G-83528 Para. 4.6.12, modified specimen .85 mm by 1.0 mm bead with plastic bolts	>80 dB	> 70 dB
Use Temperature		85°C	85°C