

## PR-1547 Potting and molding compound

### Description

PR-1547 is a high hardness potting and molding compound. It has a service temperature range from -70°F (-57°C) to 300°F (149°C). This material is designed for applications where resistance to cold flow, high tensile strength and excellent electrical properties are required.

PR-1547 is a two-part, chemically curing polyurethane compound. It cures at room temperature to a tough, semiflexible, cold flow-resistant rubber. The material has very good electrical properties, especially dielectric strength and volume resistivity, in thin films.

The following tests are in accordance with MIL-M-24041 and MIL-S-8516 specification test methods.

### Application properties (typical)

Color	
Part A	Amber or Black
Part B	Straw
Mixed	Amber or Black
Mixing ratio	Part A:Part B
By weight	32:100
Base viscosity	
(Brookfield #5 @ 10 rpm),	
Poise (Pa-s)	
two-part unit	250 (25)
premixed and frozen (PMF)	450 (45)
Application life to 2500 poise	
(250 Pa-s) @ 75°F (24°C), hours	
two-part unit	2
premixed and frozen (PMF)	1
	Cure time
	to 80 A
	Durometer
	(hours)
180°F (82°C)	2
	3
	7

### Performance properties (typical)

Cured 16 hours @ 180°F (82°C)	
Cured specific gravity	1.05
Nonvolatile content, %	99
Ultimate cure hardness,	
Durometer A	80
Volume shrinkage, %	2.5
Tensile strength, psi (KPa)	3000 (20690)
Ultimate elongation, %	600
Tear strength (Die C), lbs./in.	250
Compression set	
(ASTM D 395, Method B), %	54
(ASTM D 395, Method A), %	7
Fungus resistance (MIL-E-5272)	Non-nutrient
Peel strength, pli (N/25 mm)	
Aluminum alloy*	40 (178)
Cadmium plate*	40 (178)
Neoprene**	25 (111)
Polyvinyl chloride***	20 (89)
*Primed with PR-420 Primer	
**Buffed and primed with PR-1523-M Adhesion promoter	
***Tackified with methyl ethyl ketone and primed with PR-1543 Adhesion promoter	
Dielectric constant	
1 KHz @ 75°F (24°C)	5.8
1 MHz @ 75°F (24°C)	4.7
Power factor	
1 KHz @ 75°F (24°C)	0.050
1 MHz @ 75°F (24°C)	0.065
Volume resistivity, ohm-cm	
@ 75°F (24°C)	1 X 10 <sup>13</sup>
@ 150°F (66°C)	5 X 10 <sup>11</sup>
@ 300°F (149°C)	5 X 10 <sup>9</sup>
Surface resistivity, ohms	
@ 75°F (24°C)	1 X 10 <sup>13</sup>
Insulation resistance, megohms	
@ 75°F (24°C)	200,000
@ 150°F (66°C)	10,000
@ 250°F (121°C)	500
Dielectric strength, volts/mil	
125 mils	300

## **PR-1547 Potting and molding compound**

**Note:** The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

### **Surface preparation**

Prepare surfaces according to the PR-1500 Series Potting/Molding Application Guide.

### **Mixing instructions**

PR-1547 is supplied as a two-part unit or premixed and frozen Semco® cartridges. Mix according to the PR-1500 Series Potting/Molding Application Guide.

### **Storage life**

The storage life of PR-1547 in a two-part unit is at least 12 months when stored at temperatures below 80°F (27°C) in original unopened containers. The storage life of PR-1547 in premixed and frozen is at least 30 days when stored at temperatures below -40°F (-40°C) in original unopened containers.

### **Health precautions**

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

**For industrial use only. Keep away from children.**

**For emergency medical information call 1-800-228-5635.**

**For sales and ordering information call +1 775-323-7542.**

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