

PR-1535 Potting and molding compound

Description

PR-1535 is a high hardness potting and molding compound. It has a service temperature range from -80°F (-62°C) to 300°F (149°C). This material is designed for applications where high abrasion resistance, high tensile strength and excellent electrical properties are required. The cured compound is resistant to contact with water and oils.

PR-1535 is a two part, chemically curing polyurethane compound. It cures at room temperature to a tough, semiflexible, cold flow-resistant rubber.

The following tests are in accordance with PRC-DeSoto International and MIL-S-8516 specification test methods.

Application properties

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			240 (24)
premixed and frozen (PMF)			750 (75)
Application life to 2500 poise			
(250 Pa-s) @ 75°F (24°C), hours			
two-part unit			2
premixed and frozen (PMF)			1
			Cure time
	Tack free	Mold release	to 90 A
	time	time	Durometer
	(hours)	(hours)	(hours)
75°F (24°C)	18	24	168
180°F (82°C)	1	2.5	6

Performance properties (typical)

Cured 16 hours @ 180°F (82°C)	
Cured specific gravity	1.07
Nonvolatile content, %	99
Ultimate cure hardness,	
Durometer A	90
Volume shrinkage, %	2
Tensile strength, psi (KPa)	4500 (31030)
Ultimate elongation, %	500
Tear strength (Die C), lbs./in.	375
Compression set	
(ASTM D 395, Method B), %	32
Fungus resistance (MIL-E-5272)	Non-nutrient
Peel strength, pli (N/25 mm)	
Aluminum alloy*	40 (178)
Cadmium plate*	50 (222)
Neoprene**	20 (89)
Polyvinyl chloride***	40 (178)
*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)	6.4
10 KHz @ 75°F (24°C)	6.1
1 MHz @ 75°F (24°C)	4.8
Power factor	
1 KHz @ 75°F (24°C)	0.03
10 KHz @ 75°F (24°C)	0.04
1 MHz @ 75°F (24°C)	0.08
Volume resistivity, ohm-cm	
@ 75°F (24°C)	3 X 10 ¹²
@ 180°F (82°C)	2.4 X 10 ⁹
Surface resistivity, ohms	
@ 75°F (24°C)	4 X 10 ¹²
Insulation resistance, megohms	
@ 75°F (24°C)	500,000
@ 150°F (66°C)	100,000
@ 250°F (121°C)	7,000

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Dielectric strength, volts/mil	
125 mils	315
25 mils	670

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-1535 is supplied as a two-part unit or premixed and frozen in Semco® cartridges. Mix according to the PR-1500 Series Potting/Molding Application Guide.

Storage life

The storage life of PR-1535 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-1535 in premixed and frozen is at least 21 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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