RapidVac™ VA-1810

Polyurethane Thermoset Elastomer

Innovative Polymers, Inc.

Message:

VA-1810 is a 80 shore A polyurethane elastomer formulated for hand-batch processing, vacuum assisted processing or meter mix dispensed. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury. MOCA, or TDI. VA-1810 has excellent green strength for quick demold times.

RoHS Compliance RoHS Compliant RoH	General Information			
Appearance Off-White Processing Method Vacuum Casting Physical Nominal Value Unit Test Method Specific Gravity Test Method Specific Gravity Lured 1.12 g/cm² Hardener 1.14 g/cm² Base Resin 1.21 g/cm² Molding Shrinkage - Flow 0.20 to 0.50 % ASTM D2566 Thermoset Nominal Value Unit Test Method Thermoset Components Mix Ratio by Volume: 100 Test Method Mix Ratio by Weight: 80 Mix Ratio by Weight: 80 Test Method Resin Mix Ratio by Weight: 80 Image: Processing Weight: 80 Test Method Resin Mix Ratio by Volume: 72 Demoid Time 0.0 to 120 min Uncured Properties Nominal Value Unit Test Method Viscosity 25°C² 1.8 Pa's 25°C² 4.5 Pa's 25°C² 4.5 Pa's Curing Time 4 2.5 hr Gel Time	Features	Good Green Strength		
Processing Method	RoHS Compliance	RoHS Compliant		
Physical Nominal Value Unit Test Method Specific Gravity Cured 1.12 g/cm³ Hardener 1.14 g/cm³ Base Resin 1.21 g/cm³ Molding Shrinkage - Flow 0.20 to 0.50 % ASTM D2566 Thermoset Nominal Value Unit Test Method Thermoset Components Mix Ratio by Volume: 100 Test Method Mix Ratio by Weight: 100 Mix Ratio by Weight: 80 Test Method Resin Mix Ratio by Volume: 72 Test Method Uncured Properties Nominal Value Unit Test Method Viscosity 25°C² 1.8 Pa·s 25°C² 4.5 Pa·s 25°C² 4.5 Pa·s Curing Time⁴ 25 hr Gel Time 8.0 to 12 min Cured Properties Nominal Value Unit Test Method Shore Hardness (Shore A) 7.0 to 80 Unit Test Method	Appearance	Off-White		
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Cured Properties Nominal Value Unit Test Method Shore Hardness (Shore A) 70 to 80 ASTM D2240	Gel Time	8.0 to 12		
Shore Hardness (Shore A) 70 to 80 ASTM D2240	Cured Properties			Test Method
Tensile Strength 6.21 MPa ASTM D638	Shore Hardness (Shore A)	70 to 80		ASTM D2240
	Tensile Strength	6.21	MPa	ASTM D638

Tensile Elongation at Break	100 % ASTM D638			
Tear Strength	14.0	kN/m	ASTM D624	
NOTE				
1.	Hardener			
2.	Mixed			
3.	Resin			
4.	24 hours at 77°F + 1 hour at 150°F			

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