

Innothane® IE-5000

Polyurethane Thermoset Elastomer

Innovative Polymers, Inc.

Message:

IE-5000 is a soft, abrasion resistant elastomer formulated for room temperature hand-batch processing. The unique chemistry of the system imparts excellent electrical properties, hydrolytic stability, and flexibility at low temperatures. Excellent physical properties can be obtained without the utilization of mercury, MOCA, or TDI.

General Information			
Features	Good Abrasion Resistance		
	Good Electrical Properties		
	Hydrolytically Stable		
	Low Temperature Flexibility		
	Soft		
RoHS Compliance	RoHS Compliant		
Appearance	Clear Amber		
Processing Method	Encapsulating		
Physical	Nominal Value	Unit	
Specific Gravity			
Hardener	1.00	g/cm³	
Base Resin	1.11	g/cm³	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.8E+16	ohms	ASTM D270
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
	Mix Ratio by Volume: 100		
Hardener	Mix Ratio by Weight: 100		
	Mix Ratio by Weight: 100		
Resin	Mix Ratio by Volume: 90		
Demold Time	300 to 420	min	
Uncured Properties	Nominal Value	Unit	Test Method
Viscosity			
25°C ¹	0.050	Pa·s	
25°C ²	1.2	Pa·s	
25°C ³	4.8	Pa·s	

Curing Time ⁴	40	hr	
Gel Time	15 to 25	min	
Cured Properties	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	35 to 45		ASTM D2240
Tensile Strength	2.76	MPa	ASTM D638
Tensile Elongation at Break	200	%	ASTM D638
Tear Strength	13.1	kN/m	ASTM D624
Electric Strength (25°C)	22	kV/mm	ASTM D149
Relative Permittivity (25°C)	2.50		ASTM D150
Volume Resistivity	2.0E+16	ohms·cm	ASTM D270
Dissipation Factor (1 kHz, 25°C)	0.015		ASTM D150

NOTE

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| 1. | Resin |
| 2. | Mixed |
| 3. | Hardener |
| 4. | 24 hours at 77°F + 16 hours at 160°F |

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