

RapidCast™ RC-555

Polyurethane Thermoset Elastomer

Innovative Polymers, Inc.

Message:

RC 555 is a shore D polyurethane formulated for room temperature meter mix dispensing systems and short mold cycle times. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA, or TDI.

General Information			
Features	Fast Molding Cycle		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
Processing Method	Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
Hardener	1.10	g/cm ³	
Cured	1.14	g/cm ³	
Base Resin	1.26	g/cm ³	
Molding Shrinkage - Flow	0.10 to 0.50	%	ASTM D2566
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	1280	MPa	ASTM D790
Flexural Strength	51.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	59	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	90.0	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
	Mix Ratio by Volume: 100		
Hardener	Mix Ratio by Weight: 88		
	Mix Ratio by Weight: 100		
Resin	Mix Ratio by Volume: 100		
Demold Time	10 to 15	min	
Uncured Properties	Nominal Value	Unit	Test Method
Viscosity			
25°C ¹	0.10	Pa · s	

25°C ²	0.50	Pa·s	
25°C ³	1.2	Pa·s	
Curing Time (25°C)	24	hr	
Gel Time	1.0 to 1.3	min	
Cured Properties	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	70 to 80		ASTM D2240
Tensile Strength	32.4	MPa	ASTM D638
Tensile Elongation at Break	9.0	%	ASTM D638
NOTE			
1.	Resin		
2.	Mixed		
3.	Hardener		

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