

BJB Polyurethane TC-891 FR REV 1

Polyurethane

BJB Enterprises, Inc.

Message:

TC-891 FR REV 1 incorporates a non-mercury based catalyst system that produces a tough 80 shore D material with a 12 minute work time. This system can be used to hand pour or machine cast electronic enclosures and all types of parts requiring flame retardant characteristics.

Product Highlights:

Non-mercury

Demold time: 3-4 hours at ambient temperature in a silicone rubber mold (1/8" thick section)

RoHS compliant

UL 94V-0 Listed, flammability rating at 1/16" thickness (File# E174527)

General Information			
UL YellowCard	E174527-101116907		
Features	Flame Retardant		
RoHS Compliance	RoHS Compliant		
UL File Number	E174527		
Appearance	Opaque		
	White		
Forms	Liquid		
Processing Method	Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
-- ¹	1.18	g/cm ³	
--	1.30	g/cm ³	
-- ²	1.33	g/cm ³	
Specific Volume	0.791	cm ³ /g	
Gel Time	13.0 to 15.0	min	
Work Time ³ (25°C)	12.0 to 14.0	min	
Molding Shrinkage - Flow	0.050	%	ASTM D2566
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	78 to 82		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1720	MPa	ASTM D638
Tensile Strength (Yield)	42.2	MPa	ASTM D638
Tensile Elongation (Yield)	21	%	ASTM D638
Flexural Modulus	1940	MPa	ASTM D790
Flexural Strength	69.8	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	31	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	85.6	°C	
1.8 MPa, Unannealed	75.6	°C	
Ball Pressure Test (75°C, 1.30 mm)	Pass		IEC 60695-10-2
Electrical	Nominal Value		Test Method
Dielectric Constant (1 MHz)	3.24		ASTM D150
Dissipation Factor (1 MHz)	0.014		ASTM D150
Flammability	Nominal Value		Test Method
Flame Rating	V-0		UL 94
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Part A	Mix Ratio by Weight: 70, Mix Ratio by Volume: 79		
Part B	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100		
Shelf Life	26	wk	
Thermoset Mix Viscosity			ASTM D2393
25°C ⁴	740	cP	
25°C ⁵	1450	cP	
25°C ⁶	325	cP	
Demold Time (25°C)	180 to 240	min	
Post Cure Time (25°C)	120 to 170	hr	
NOTE			
1.	Part A		
2.	Part B		
3.	100g mass		
4.	Mixed		
5.	Part B		
6.	Part A		

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