BJB Polyurethane TC-894 FR REV 1

Polyurethane

BJB Enterprises, Inc.

Message:

TC-894 FR REV 1 incorporates a non-mercury based catalyst system that produces a tough 80 shore D material with a 2.5 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: 60 minutes 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	
Features	Good toughness Flame retardancy
Uses	Electrical/Electronic Applications Shell
RoHS Compliance	RoHS compliance
UL File Number	E174527
Appearance	White Opacity
Processing Method	Casting

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
-- [1]	1.18	g/cm³	
-- [2]	1.33	g/cm³	
--	1.30	g/cm³	ASTM D792
Shrinkage [3]	0.15	%	ASTM D2566
Gel Time	3.0	min	
Work Time [4] (25°C)	2.5	min	
Cure Time (25°C)	5.0 - 7.0	day	

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	78 - 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 (Break)	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, not annealed	85.6	°C	ASTM D648
1.8 MPa, not annealed	75.6	°C	ASTM D648
Electrical	**Nominal Value**		**Test Method**
Dielectric Constant (1 MHz)	3.24		ASTM D150
Dissipation Factor (1 MHz)	0.014		ASTM D150
Thermoset	**Nominal Value**	**Unit**	**Test Method**
Thermoset Components			
Component a	Mixing ratio by weight: 70, mixing ratio by capacity: 79		
Component B	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Shelf Life	26	wk	
Thermoset Mix Viscosity			Brookfield
25°C [5]	325	cP	Brookfield
25°C [6]	1450	cP	Brookfield
25°C	740	cP	Brookfield
Demold Time (25°C)	60	min	
Additional Information	**Nominal Value**	**Unit**	**Test Method**

Note: Reported physical properties are based on test specimens cured at an elevated temperature, 180°F.In order to achieve maximum physical properties, a post cure with heat is required. BJB recommends 24 hours at ambient temperature, 77°F (25°C), followed by 16 hours at 150-180°F (66-82°C). Support of the part may be required to prevent part deformation during heat cure.

NOTE	
1.	Part A
2.	Part B
3.	12"x 1/2"x 1/2"
4.	100g mass
5.	Part A
6.	Part B

Recommended distributors for this material

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