

BJB Polyurethane TC-850 A/B

Polyurethane

BJB Enterprises, Inc.

Message:

TC-850 A/B produces a high impact rigid 75 Shore D material that is commonly used to make computer housings, models of all kinds, artwork, and can also be used for electronic component encapsulation. It provides a working time of 6 - 7 minutes.

PRODUCT HIGHLIGHTS:

Non-Mercury Based Catalyst System

One to two hour demold time

High impact rigid material

Excellent for vacuum or pressure casting

Odorless, clean white

Low viscosity

General Information	
Features	Low viscosity Rigidity, high Impact resistance, high The smell is low to none
Uses	Electrical/Electronic Applications Shell
RoHS Compliance	RoHS compliance
Appearance	White Opacity
Forms	Liquid
Processing Method	Enclosure Casting

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
-- ¹	1.06	g/cm ³	
-- ²	1.10	g/cm ³	
--	1.12	g/cm ³	ASTM D792
Specific Volume	0.925	cm ³ /g	
Shrinkage ³	0.60	%	
Gel Time	7.0 - 8.0	min	
Work Time ⁴ (25°C)	6.0 - 7.0	min	
Cure Time (25°C)	5.0 - 7.0	day	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	73 - 77		ASTM D2240

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1450	MPa	ASTM D638
Tensile Strength (Yield)	46.9	MPa	ASTM D638
Tensile Elongation (Yield)	10	%	ASTM D638
Flexural Modulus	1670	MPa	ASTM D790
Flexural Strength	67.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	35	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	95.0	°C	ASTM D648
1.8 MPa, not annealed	89.4	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Component a	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Component B	Mixing ratio by weight: 50, mixing ratio by capacity: 52		
Shelf Life	26	wk	
Thermoset Mix Viscosity			ASTM D2393
25°C ⁵	160	cP	ASTM D2393
25°C ⁶	1350	cP	ASTM D2393
25°C ⁷	75.0	cP	ASTM D2393
Demold Time (25°C)	60 - 120	min	
Additional Information	Nominal Value	Unit	Test Method

Note: Reported physical properties based on elevated temperature cured test specimens. 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 180°F (82°C). Support of the part may be required to prevent part deformation during heat cure.

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

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