BJB Polyurethane TC-852 A/B

Polyurethane

BJB Enterprises, Inc.

Message:

TC-852 A/B produces a high impact, rigid 78 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. TC-852 A/B is an excellent hand-castable product that produces parts with heat deflection temperatures up to 220°F (104°C). Product Highlights: Non-Mercury Based Catalyst System RoHS compliant High impact rigid material Odorless, clean white color One to two hour demold time Excellent for vacuum or pressure casting Low viscosity Exhibits exceptional high heat distortion temperature

General Information				
Features	Low viscosity			
	Rigidity, high			
	Impact resistance, high			
	Heat resistance, high			
	The smell is low to none			
Uses	Electrical/Electronic Applications			
	Shell			
RoHS Compliance	RoHS compliance			
Appearance	Opacity			
	White-like			
Forms	Liquid			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity				
¹	1.05	g/cm³		
²	1.12	g/cm³		
	1.15	g/cm³	ASTM D792	
Shrinkage ³	0.40	%		
Gel Time	5.0	min		
Work Time ⁴ (25°C)	4.5	min		
Cure Time (25°C)	5.0 - 7.0	day		
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness (Shore D)	76 - 80		ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method	

Tensile Modulus	1650	MPa	ASTM D638
Tensile Strength	48.3	MPa	ASTM D638
Tensile Elongation (Break)	12	%	ASTM D638
Flexural Modulus	1860	MPa	ASTM D790
Flexural Strength	72.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact	37	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	102 - 107	°C	ASTM D648
1.8 MPa, not annealed	90.6 - 96.1	°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: 53		
Shelf Life	26	wk	
Thermoset Mix Viscosity			Brookfield
25°C ⁵	1450	сР	Brookfield
25℃ ⁶	70.0	сР	Brookfield
25°C	250	cP	Brookfield
Demold Time (25°C)	60 - 120	min	
Additional Information	Nominal Value	Unit	Test Method

Note: Reported physical properties are based on test specimens cured at an elevated temperature, 180°F (82°C). 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 the heat curing process.

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

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