BJB Polyurethane TC-854 A/B

Polyurethane

BJB Enterprises, Inc.

Message:

TC-854 A/B is a rigid 84 Shore D polyurethane system that exhibits exceptional physical properties. It is a high performance material that features high heat deflection capability and a low shrink factor. TC-854 is a highly translucent, colorless casting material that allows for unrestricted tinting and precise color matching. This product is ideal for producing intrinsically colored parts requiring a non-painted finish. This product can be easily processed for hand-cast, meter-mix- dispense, or vacuum cast applications.
Product Highlights:
Non-Mercury Based Catalyst System
High impact rigid material
Odorless, translucent
Excellent for hand, vacuum or pressure casting
Low viscosity
Exhibits high heat distortion temperature

General Information	
Features	Low viscosity Impact resistance, good Good coloring Heat resistance, high The smell is low to none Low shrinkage
RoHS Compliance	RoHS compliance
Appearance	Yellow Clear/transparent
Forms	Liquid
Processing Method	Casting

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792
Specific Gravity			
Part A : 25°C	1.167	g/cm³	
Part B : 25°C	1.067	g/cm³	
Shrinkage [1]	0.10	%	
Gel Time	7.0 - 9.0	min	
Work Time (25°C) [2]	6.0 - 8.0	min	
Brokfield Viscosity			
Mixed : 25°C	450	mPa·s	
Part A : 25°C	165	mPa·s	
Part B : 25°C	725	mPa·s	
Cure Time (25°C)	5.0 - 7.0	day	

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	82 - 86		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2280	MPa	ASTM D638
Tensile Strength	69.4	MPa	ASTM D638
Tensile Elongation (Break)	11	%	ASTM D638
Flexural Modulus	2480	MPa	ASTM D790
Flexural Strength	94.5	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	61	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	85.0 - 90.6	°C	ASTM D648
1.8 MPa, not annealed	73.9 - 79.4	°C	ASTM D648
Thermoset	**Nominal Value**	**Unit**	
Thermoset Components			
Component a	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Component B	Mixing ratio by weight: 60, mixing ratio by capacity: 66		
Shelf Life	26	wk	
Demold Time (25°C)	120 - 180	min	
Additional Information	**Nominal Value**	**Unit**	

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° (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.	12" x 1/2" x 1/2"
2.	100g mass

Recommended distributors for this material

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