Rigid Cast RC-8017

Polyurethane

BJB Enterprises, Inc.

Message:

RIGID-CAST 8017 A/B is a rigid, 80 Shore D, two-component high impact and high strength castable urethane. RC-8017 A/B has been designed to meet a wide variety of part making applications that range from electronic enclosures to mechanical parts. This system is very light in color and its translucency makes it extremely easy to color. RC-8017 A/B can also be demolded in one hour or less, depending on part thickness and mold conditions.
The RC-8017 A/B has a work time of approximately 60 seconds and meter mix dispensing equipment is recommended for processing. BJB offers meter mix dispensing equipment ranging from hand operated static mix systems to air-power operated production systems. Call BJB's technical representatives to provide processing information assistance.
Product Highlights:
Convenient 1:1 by volume mix ratio for automated and manual dispensing equipment
High impact resistance and flexural strength
Low viscosity and rapid flow out for thin wall parts

General Information			
Features	Low viscosity		
	Impact resistance, high		
	Good strength		
	High liquidity		
Uses	Electrical/Electronic Applications		
	Machine/mechanical parts		
	Shell		
Appearance	Translucent		
Forms	Liquid		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
-- [1]	1.04	g/cm³	
-- [2]	1.19	g/cm³	
--	1.12	g/cm³	ASTM D792
Shrinkage			
-- [3]	0.40	%	
-- [4]	0.20	%	
Gel Time	0.9 - 1.1	min	
Work Time [5]	0.9 - 1.1	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	1860	MPa	ASTM D638
Tensile Strength	46.9	MPa	ASTM D638

Tensile Elongation (Yield)	14	%	ASTM D638
Flexural Modulus	1520	MPa	ASTM D790
Flexural Strength (Yield)	57.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	56	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	71.1	°C	ASTM D648
1.8 MPa, not annealed	60.0	°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: 88, mixing ratio by capacity: 100		
Thermoset Mix Viscosity			Brookfield
25°C [6]	550	cP	Brookfield
25°C [7]	1300	cP	Brookfield
25°C	900	cP	Brookfield
43°C [8]	350	cP	Brookfield
43°C	400	cP	Brookfield
Demold Time [9]	40 - 60	min	

Additional Information	Nominal Value	Unit	Test Method

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.	Post-cured, 12" x 1/2" x 1/4"
4.	7-day ambient cure, 12" x 1/2" x 1/4"
5.	100g mass
6.	Part A
7.	Part B
8.	Part B
9.	2.2 mm thick, closed mold

Recommended distributors for this material

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