Rigid Cast RC-8006 FR

Polyurethane

BJB Enterprises, Inc.

Message:

Rigid-Cast 8006 FR A/B produces a tough, rigid 78 Shore D urethane based material for use in making small detailed parts, models, prototypes and limited runs of production parts. This material has a convenient 1 to 2 parts by volume ratio, with an approximate three-minute working time, ideal for hand dispensing using dual cartridge static mix equipment.

Product Highlights:

Designed for cartridge dispensing
Parts can demold in 45 to 60 minutes
Convenient 1:2 ratio by weight or volume
Heat resistance to 195°F (91°C)
Meets UL 94V-0 classification
Non-mercury containing catalyst system

Non-brittle during early cure and after demold

Appearance Cream Forms Liquid Physical Nominal Value Unit Test Method Specific Gravity 1.25 g/cm³ ASTM D792 Shrinkage 6.35 mm 1 0.30 % 6.35 mm 2 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 Unit Test Method Durometer Hardness (Shore D) 76 to 80 Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	General Information					
Appearance Cream Forms Liquid Physical Nominal Value Unit Test Method Specific Gravity 1.25 g/cm³ ASTM D792 Shrinkage 6.35 mm¹ 0.30 % 6.35 mm² 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact Nominal Value Unit Test Method Notched Izod Impact Nominal Value Unit Test Method Notched Izod Impact Unit Test Method Deflection Temperature Under Load O.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	Features	Medium Heat Resistance				
Physical Nominal Value Unit Test Method		Thixotropic				
Physical Nominal Value Unit Test Method						
Physical Nominal Value Unit Test Method Specific Gravity 1.25 g/cm³ ASTM D792 Shrinkage	Appearance	Cream				
Specific Gravity 1.25 g/cm³ ASTM D792 Shrinkage 6.35 mm 1 0.30 % 6.35 mm 2 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	Forms	Liquid				
Shrinkage 6.35 mm 1 0.30 % 6.35 mm 2 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load *C *C 1.8 MPa, Unannealed 87.8 to 93.3 *C	Physical	Nominal Value	Unit	Test Method		
6.35 mm 1 0.30 % 6.35 mm 2 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load C45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Specific Gravity	1.25	g/cm³	ASTM D792		
6.35 mm² 0.20 % Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	Shrinkage					
Work Time (25°C) 2.5 to 3.0 min Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load Was to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	6.35 mm ¹	0.30	%			
Hardness Nominal Value Unit Test Method Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 87.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	6.35 mm ²	0.20	%			
Durometer Hardness (Shore D) 76 to 80 ASTM D2240 Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load VASTM D93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	Work Time (25°C)	2.5 to 3.0	min			
Mechanical Nominal Value Unit Test Method Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load Unit Test Method 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Hardness	Nominal Value	Unit	Test Method		
Tensile Modulus 896 MPa ASTM D638 Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load V ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Durometer Hardness (Shore D)	76 to 80		ASTM D2240		
Tensile Strength 33.1 MPa ASTM D638 Tensile Elongation (Yield) 3.8 % ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 7.8 to 93.3 °C 1.8 MPa, Unannealed 87.8 to 93.3 °C	Mechanical	Nominal Value	Unit	Test Method		
Tensile Elongation (Yield) 3.8 MPa ASTM D638 Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method ASTM D256 Thermal Nominal Value Unit Test Method ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Tensile Modulus	896	MPa	ASTM D638		
Flexural Modulus 1930 MPa ASTM D790 Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Tensile Strength	33.1	МРа	ASTM D638		
Flexural Strength (Yield) 64.1 MPa ASTM D790 Impact Nominal Value Unit Test Method Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Tensile Elongation (Yield)	3.8	%	ASTM D638		
ImpactNominal ValueUnitTest MethodNotched Izod Impact26J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadASTM D6480.45 MPa, Unannealed87.8 to 93.3°C1.8 MPa, Unannealed82.2°C	Flexural Modulus	1930	МРа	ASTM D790		
Notched Izod Impact 26 J/m ASTM D256 Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Flexural Strength (Yield)	64.1	МРа	ASTM D790		
Thermal Nominal Value Unit Test Method Deflection Temperature Under Load ASTM D648 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Impact	Nominal Value	Unit	Test Method		
Deflection Temperature Under Load 0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Notched Izod Impact	26	J/m	ASTM D256		
0.45 MPa, Unannealed 87.8 to 93.3 °C 1.8 MPa, Unannealed 82.2 °C	Thermal	Nominal Value	Unit	Test Method		
1.8 MPa, Unannealed 82.2 °C	Deflection Temperature Under Load			ASTM D648		
	0.45 MPa, Unannealed	87.8 to 93.3	°C			
Flammability Nominal Value Test Method	1.8 MPa, Unannealed	82.2	°C			
	Flammability	Nominal Value		Test Method		

Flame Rating	V-0		UL 94	
Thermoset	Nominal Value	Unit	Test Method	
Thermoset Components				
Part A	Mix Ratio by Weight: 50, Mix Ratio by Volume: 50			
Part B	Mix Ratio by Weight: 100,	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100		
Thermoset Mix Viscosity	800	сР	ASTM D2393	
Demold Time	45 to 60	min		
Post Cure Time (25°C)	2.0 to 4.0	hr		
NOTE				
1.	Post-cure, Method 1			
2.	7-day ambient cure			

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

