Bayflex® LSR 10

Polyurethane

Covestro - PUR

Message:

Bayflex LSR 10 is a solid elastomer which has a flexural modulus of 17,500 psi at room temperature. It is processed on reaction injection molding (RIM) equipment and is used for glass encapsulation of windows. This system combines rapid demold times, excellent integrity at demold, and outstanding physical properties.

The Bayflex LSR 10 system was developed to add a weather-resistant grade to our range of window encapsulation systems. In some cases, the weatherability of this system eliminates the need for post-painting or in-mold coatings. This product is available only in black. Bayflex LSR 10 is a formulated RIM system supplied as two reactive liquid components. Component A is a diphenylmethane diisocyanate (MDI) prepolymer, and component B is a polyether polyol. As with any product, use of the Bayflex LSR 10 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	Nominal Value	Unit	
Density	1.03	g/cm³	
Viscosity			
25°C ¹	100	mPa·s	
25°C ²	1320	mPa∙s	
Weatherometer Aging - Delta E ³	1.70		SAE J2527
Flash Point			
4	> 93	°C	
5	> 121	°C	
Arizona Weathering - Delta E ⁶	0.350		GM 9327P
Florida Weathering - Delta E ⁷	1.70		GM 9327P
Sunshine Carbon Arc - Delta E ⁸	1.30		
Hardness	Nominal Value	Unit	
Durometer Hardness			
Shaw A, 1 sec	94		
Shaw A, 5 seconds	93		
Shaw D, 1 sec	44		
Shaw D, 5 seconds	42		
Mechanical	Nominal Value	Unit	
Tensile Strength	14.1	MPa	
Tensile Elongation (Break)	200	%	
Flexural Modulus			
-30°C	309	MPa	
25°C	121	MPa	
70°C	15.7	MPa	
Elastomers	Nominal Value	Unit	

Tear Strength ⁹	40.3	kN/m	
Compression Set ¹⁰	67	%	
Thermoset	Nominal Value		Test Method
Thermoset Components			
Component a ¹¹	Mixing ratio by weight: 54		
Component B ¹²	Mixing ratio by weight: 100		
Additional Information	Nominal Value		Test Method
Part A			
Type: Isocyanate			
Specific Gravity @ 25°C: 1.07			
Viscosity @25°C: 100 mPa-s			
Flash Point PMCC: >93.3 °C			
Part B			
Type: Polyol			
Specific Gravity @ 25°C: 1.03			
Viscosity @25°C: 1320 mPa-s			
Flash Point PMCC: >121 °C			
Injection	Nominal Value	Unit	
Mold Temperature	80.0 - 100	°C	

Injection instructions

Polyol Temperature: 48 to 55°Clsocyanate Temperature: 40 to 46°CPolyol Nucleation: 0.9 to 1.00 S.G.Typical Cure Time at 0.125 in: 30 secMachine Reactivity at 40°C, Gel Time: 8 sec

NOTE	
1.	Component A (Isocyanate)
2.	Component B (Polyol)
	2500 kJ/m², Atlas CXW Open
3.	Flame, ASTM G155, Cycle 7
4.	Component A (Isocyanate), PMCC
5.	Component B (Polyol), PMCC
6.	2 years
7.	2 years
8.	1000 hr
9.	C mould
10.	25% Deflection
11.	Isocyanate
12.	Polyol

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