Bayflex® WR-80

Polyurethane (Polyether, MDI)

Covestro - PUR

Message:

Bayflex WR-80 is a solid elastomer which has a flexural modulus of 10,000 psi (69 MPa) at room temperature. It is processed on reaction injection molding (RIM) equipment and is used for rollers, gaskets, and encapsulated windows. This system combines rapid demold times, excellent integrity at demold, improved release characteristics, and outstanding physical properties. The Bayflex WR-80 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 WR-80 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 WR-80 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Features	Good weather resistance Good demoulding performance		
Uses	Washer Roller Doors and Windows		
Appearance	Black		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.03	g/cm³	ASTM D1622
Molding Shrinkage - Flow	1.5	%	Internal method
Water Absorption (24 hr)	3.3	%	Internal method
Water absorption rate-240 hr	6.4	%	Internal method
Weatherometer Aging - Delta E [1]	14.0		SAE J2527
Low Temperature Brittleness (-50°C)	No Cracking		ASTM D746
Water Immersion, Length Increase	1.4	%	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	91		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus			ASTM D790
-30°C	215	MPa	ASTM D790
23°C	68.9	MPa	ASTM D790
65°C	45.5	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break)	17.2	MPa	ASTM D412
Tensile Elongation (Break)	300	%	ASTM D412

Tear Strength [2]	79.2	kN/m	ASTM D624
Thermoset	**Nominal Value**	**Unit**	**Test Method**
Thermoset Components [3]			
Component a	Mixing ratio by weight: 37		
Component B	Mixing ratio by weight: 100		
Demold Time	0.50	min	
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Part A Type: Isocyanate Specific Gravity @ 25°C: 1.21 Viscosity @25°C: 700 mPa-s Flash Point PMCC: 213 °C Part B Type: Polyol Specific Gravity @ 25°C: 1.02 Viscosity @25°C: 1400 mPa-s Flash Point PMCC: 184 °C Molding Parameters Material Temperature: 32 to 42 °C Mold Temperature: 60 to 70 °C			

NOTE	
1.	ASTM G155, cycle 7 @ 2500 kJ/m^2, Atlas CXW Open Flame
2.	C mould
3.	105 Index

Recommended distributors for this material

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