

# Bayflex® 110-50 (15% Mineral)

Polyurethane (Polyether, MDI)

Covestro - PUR

## Message:

The Bayflex 110-50 system produces a solid urethane elastomer which has a flexural modulus of approximately 50,000 psi\* at room temperature. This system can be used with or without milled glass fiber or mineral reinforcements. The Bayflex 110-50 system is used in applications requiring excellent impact properties such as automotive fascias, agricultural and construction equipment, specialty vehicles and recreational equipment.

The Bayflex 110-50 system is a formulated elastomeric reaction injection molding (RIM) system supplied as two liquid components. Component A is a diphenylmethane diisocyanate (MDI) prepolymer, and Component B is a polyether polyol system. As with any product, use of the Bayflex 110-50 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
UL YellowCard	E61384-247031		
Filler / Reinforcement	Mineral filler, 15% filler by weight		
Features	Impact resistance, good		
Uses	Architectural application field		
	Agricultural application		
	Application in Automobile Field		
	Strap		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.15	g/cm <sup>3</sup>	ASTM D792, ASTM D1622
Molding Shrinkage - Flow (3.18 mm)	0.60	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 3.18 mm)	60		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus			ASTM D790
-30°C, 3.18 mm	1720	MPa	ASTM D790
23°C, 3.18 mm	862	MPa	ASTM D790
65°C, 3.18 mm	765	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break, 3.18 mm)	22.8	MPa	ASTM D412
Tensile Elongation (Break, 3.18 mm)	140	%	ASTM D412
Tear Strength <sup>1</sup> (3.18 mm)	112	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	160	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (3.18 mm)	4.9E-5	cm/cm/°C	ASTM D696
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components <sup>2</sup>			

Component a	Mixing ratio by weight: 58		
Component B	Mixing ratio by weight: 100		
Additional Information	Nominal Value	Unit	Test Method
Heat Sag - 6 in Overhang <sup>3</sup> (121°C, 3.18 mm)	4.06	mm	ASTM D3769

#### Part A

Type: Isocyanate

Appearance: Light yellow to yellow liquid

Specific Gravity @ 25°C: 1.21

Viscosity @25°C: 700 mPa-s

Flash Point PMCC: 213 °C

#### Part B

Type: Polyol

Appearance: Dark amber viscous liquid

Specific Gravity @ 25°C: 1.03

Viscosity @25°C: 1300 mPa-s

Flash Point PMCC: 174 °C

#### Molding Parameters

Material Temperature: 32 to 38 °C

Mold Temperature: 60 to 70 °C

Typical Cure Time, 0.125 in: 30 sec

Polyol Nucleation - Specific Gravity: 0.70 to 0.75 0

#### NOTE

1. C mould
2. 105 Index
3. 1 hr

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