

# Bayflex® 110-35 IMR

Polyurethane (Polyether, MDI)

Covestro - PUR

## Message:

Bayflex 110-35 IMR system produces a solid urethane elastomer which has a flexural modulus of approximately 33,500 psi\* at room temperature. This system is used to provide multiple releases of large reaction injection molding (RIM) parts, such as automotive fascias. The system contains internal mold release (IMR) and is used with milled glass fiber or mineral reinforcements.

Bayflex 110-35 IMR is a formulated 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 110-35 IMR system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Uses	Application in Automobile Field Strap		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm <sup>3</sup>	ASTM D792, ASTM D1622
Molding Shrinkage - Flow (3.18 mm)	1.3	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break, 3.18 mm)	24.1	MPa	ASTM D638
Tensile Elongation (Break, 3.18 mm)	140	%	ASTM D638
Flexural Modulus			ASTM D790
-30°C, 3.18 mm	1380	MPa	ASTM D790
23°C, 3.18 mm	552	MPa	ASTM D790
65°C, 3.18 mm	352	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break, 3.18 mm)	24.1	MPa	ASTM D412
Tensile Elongation (Break, 3.18 mm)	140	%	ASTM D412
Tear Strength <sup>1</sup> (3.18 mm)	82.3	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	270	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (3.18 mm)	1.1E-4	cm/cm/°C	ASTM D696
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components <sup>2</sup>			
Component a	Mixing ratio by weight: 53		
Component B	Mixing ratio by weight: 100		
Demold Time	0.50	min	
Additional Information	Nominal Value	Unit	Test Method

Heat Sag - 6 in Overhang <sup>3</sup> (121°C, 3.18 mm)	7.62	mm	ASTM D3769
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#### 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: Pale yellow liquid

Specific Gravity @ 25°C: 1.1

Viscosity @25°C: 1250 mPa-s

Flash Point PMCC: 160 °C

Molding Parameters

Material Temperature - Component A: 38 °C

Material Temperature - Component B: 43 to 49 °C

Mold Temperature: 66 °C

#### NOTE

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

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