

Bayflex® XGT-16 BLACK

Polyurethane (Polyether, MDI)

Covestro - PUR

Message:

Bayflex XGT-16 Black is a black-pigmented elastomeric polyurethane system used in the reaction injection molding (RIM) process. The formulated system is supplied as two liquid components: Component A is a diphenylmethane diisocyanate (MDI) prepolymer, and Component B is a polyether polyol system. Note: The polyol component phase-separates upon standing and must be thoroughly mixed via mechanical means prior to use.

Bayflex XGT-16 Black system has a flexural modulus of 16,000 psi* at room temperature. It is used in applications requiring excellent impact properties, such as bumpers for buses and other vehicles. As with any product, use of the Bayflex XGT-16 Black system in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

General Information			
Features	Impact resistance, good		
Uses	Car anti-collision bar		
Appearance	Black		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792, ASTM D1622
Molding Shrinkage - Flow (3.18 mm)	0.80 - 0.90	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 3.18mm	94		ASTM D2240
Shaw D, 3.18mm	45		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus (3.18 mm)	110	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1.0E 6g, H-18 wheel)	200	mg	ASTM D1044
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break, 3.18 mm)	16.5	MPa	ASTM D412
Tensile Elongation (Break, 3.18 mm)	250	%	ASTM D412
Tear Strength ¹ (3.18 mm)	78.8	kN/m	ASTM D624
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (3.18 mm)	1.4E-4	cm/cm/°C	ASTM D696
Thermoset	Nominal Value	Unit	
Thermoset Components ²			
Component a	Mixing ratio by weight: 80, mixing ratio by capacity: 68		
Component B	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Shelf Life (30°C)	26	wk	
Additional Information			

Part A

Type: Isocyanate

Appearance: Water white to clear pale yellow liquid

Specific Gravity @ 25°C: 1.21

Viscosity @25°C: 700 mPa-s

Flash Point PMCC: 213 °C

Part B

Type: Polyol

Appearance: Black liquid

Specific Gravity @ 25°C: 1.04

Viscosity @25°C: 600 mPa-s

Flash Point PMCC: 112 °C

Water: 0.09 wt%

Hydroxyl Number: 229 mg KOH/g

Molding Parameters

Material Temperature: 32 to 38 °C

Mold Temperature: 60 to 70 °C

Typical Cure Time, 0.125 in: 120 to 180 sec

Polyol Nucleation - Specific Gravity: 0.75 to 0.80 0

shot time: 5 to 6 sec

NOTE

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| 1. | C mould |
| 2. | 1.05 Index |

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