Bayflex® XGT-50 BLACK

Polyurethane (Polyether, MDI)

Covestro - PUR

Message:

Bayflex XGT-50 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-50 Black system has a flexural modulus of 50,000 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 Bayflex XGT-50 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/cm³	ASTM D792, ASTM D1622
Molding Shrinkage - Flow (3.18 mm)	0.80 - 0.90	%	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, 3.18 mm)	55		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus			ASTM D790
-30°C, 3.18 mm	724	MPa	ASTM D790
23°C, 3.18 mm	345	MPa	ASTM D790
65°C, 3.18 mm	124	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)	24.1	MPa	ASTM D412
Tensile Elongation (Break, 3.18 mm)	200	%	ASTM D412
Tear Strength [1] (3.18 mm)	92.8	kN/m	ASTM D624
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	670	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
CLTE - Flow (3.18 mm)	1.1E-4	cm/cm/°C	ASTM D696
Flammability	**Nominal Value**		**Test Method**
Flammability (3.18 mm)	Pass		FMVSS 302
Heat Sag - 4 in Overhang [2] (121°C, 3.18 mm)	1.70	cm	ASTM D3769
Thermoset	**Nominal Value**	**Unit**	**Test Method**

Thermoset Components [3]		
Component a	Mixing ratio by weight: 110, mixing ratio by capacity: 96	
Component B	Mixing ratio by weight: 100, mixing ratio by capacity: 100	
Shelf Life (30°C)	26	wk

Additional Information	Nominal Value	Unit	Test Method

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
NCO: 22.6 - 23.1 %
Part B
Type: Polyol
Appearance: Black liquid
Specific Gravity @ 25°C: 1.05
Viscosity @25°C: 600 mPa-s
Flash Point PMCC: 119 °C
Water: 0.09 wt%
Hydroxyl Number: 316 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: 11 to 12 sec

NOTE	
1.	C mould
2.	1 hr
3.	1.05 Index

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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