Bayflex® XGT-100

Polyurethane (Polyether, MDI)

Covestro - PUR

Message:

Bayflex XGT-100 is an elastomeric polyurethane system used in the reaction injection molding (RIM) process. The system is supplied as two liquid components: Component A is a modified diphenylmethane diisocyanate (MDI), and Component B is a polyether polyol system.
The extended gel time of Bayflex XGT-100 system gives equipment designers the flexibility to create large, complex parts that can be molded on existing injection machinery. The resin 's excellent surface quality and high impact resistance make it a candidate for agricultural equipment, heavy-duty trucks, specialty transportation, and marine applications. As with any product, use of the Bayflex XGT-100 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Features	Impact resistance, high Excellent appearance		
Uses	Ship application Agricultural application		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.04	g/cm³	ASTM D1622, ASTM D792
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)	69		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break, 3.18 mm)	29.0	MPa	ASTM D638
Tensile Elongation (Break, 3.18 mm)	140	%	ASTM D638
Flexural Modulus			ASTM D790
-30°C, 3.18 mm	1520	MPa	ASTM D790
23°C, 3.18 mm	689	MPa	ASTM D790
70°C, 3.18 mm	310	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength [1] (3.18 mm)	117	kN/m	ASTM D624
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	370	J/m	ASTM D256
Instrumented Dart Impact [2]			ASTM D3763
-30°C, 3.18 mm	3.39	J	ASTM D3763
23°C, 3.18 mm	33.9	J	ASTM D3763
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 [3]			
Component a	Mixing ratio by weight: 150, mixing ratio by capacity: 130		
Component B	Mixing ratio by weight: 100, mixing ratio by capacity: 100		
Demold Time	1.5	min	

Additional Information	Nominal Value	Unit	Test Method
Heat Sag - 4 in Overhang [4] (121°C, 3.18 mm)	1.50	cm	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
NCO: 22.6 - 23.1 %
Part B
Type: Polyol
Appearance: Colorless to pale yellow liquid
Specific Gravity @ 25°C: 1.03
Viscosity @25°C: 550 mPa-s
Flash Point PMCC: 110 °C
Water: <0.09 wt%
Molding Parameters
Material Temperature - Component A: 32 to 38 °C
Material Temperature - Component B: 32 to 38 °C
Mold Temperature: 66 to 71 °C
Polyol Nucleation - Specific Gravity: 0.75
shot time: 5 sec

NOTE	
1.	C mould
2.	2.24 m/sec
3.	1.05 Index
4.	1 hr

Recommended distributors for this material

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