Bayflex® XGT-2 (50% BaSO4)

Polyurethane (MDI)

Covestro - PUR

Message:

Bayflex XGT 2 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 2 gives equipment designers the flexibility to create large, complex parts that can be molded on existing injection machinery.
The resin's soft feel and the ability to tailor part density through the addition of barium sulfate make this product ideal for applications that require some level of sound absorption, such as floor coverings in heavy trucks or equipment. In addition, the material is soft enough to be used for producing seals, gaskets and wire harness type applications. As with any product, use of the Bayflex XGT 2 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Filler / Reinforcement	Barium sulfate, 50% filler by weight		
Features	Noise reduction Soft		
Uses	Washer Seals Application in Automobile Field		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.66	g/cm³	ASTM D1622, ASTM D1505
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shaw A, 1 sec	80		ASTM D2240
Shaw A, 5 seconds	78		ASTM D2240
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D412
Transverse flow: Yield [1]	5.00	MPa	ASTM D412
Transverse flow: Yield [2]	5.82	MPa	ASTM D412
Flow: Yield [3]	5.10	MPa	ASTM D412
Flow: Yield [4]	5.87	MPa	ASTM D412
Tensile Elongation			ASTM D412
Transverse flow: Fracture [5]	250	%	ASTM D412
Flow: Fracture [6]	250	%	ASTM D412
Transverse flow: Fracture [7]	280	%	ASTM D412
Flow: Fracture [8]	270	%	ASTM D412
Tear Strength			
Transverse flow [9]	5.27	kN/m	ASTM D1938

Flow [10]	4.24	kN/m	ASTM D1938
Transverse flow [11]	17.1	kN/m	ASTM D624
Flow [12]	16.5	kN/m	ASTM D624
Compression Set	27	%	ASTM D395B

Flammability	Nominal Value	Test Method
Flammability	Pass	FMVSS 302
Low temperature toughness-16 hr (-29°C)	Pass	SAE J80

Thermoset	Nominal Value	Test Method
Thermoset Components		
Component a	Mixing ratio by weight: 16	
Component B	Mixing ratio by weight: 100	

Additional Information	Nominal Value	Test Method

Part A
Type: Isocyanate
Specific Gravity @ 25°C: 1.21
Viscosity @25°C: 700 mPa-s
Flash Point PMCC: 213 °C
NCO: 22.6 to 23.1 wt%
Part B
Type: Polyol
Specific Gravity @ 25°C: 1.86
Viscosity @25°C: 8000 mPa-s
Flash Point PMCC: 114 °C
Water: 0.09 wt% max
Molding Parameters
Isocyanate Temperature: 38 to 43°C
Slurry Temperature: 63 to 68°C
Slurry or Polyol Nucleation: 5 to 10%
Maximum Shot Time: 7 sec
Typical Cure Time, 0.125 in: 3 min
Slurry Mixing Ratio, Polyol/BaSO4, by weight: 100/138
Polyol Mixhead Pressure: 1700 to 1800 psi
Isocyanate Mixhead Pressure: 1850 to 1950 psi

Injection	Nominal Value	Unit
Mold Temperature	65.6 - 76.7	°C

NOTE	
1.	510 mm/min
2.	C mold, 510 mm/min, aging 70 hr at 70°C
3.	C mold, 510mm/min
4.	C mold, 510 mm/min, aging 70 hr at 70°C
5.	510 mm/min
6.	510 mm/min
7.	Mouth Model C, 510 mm/min, aging 70 hr at 70°C
8.	Mouth Model C, 510 mm/min, aging 70 hr at 70°C
9.	Split
10.	Split

11.	C mould
12.	C mould

Recommended distributors for this material

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