Bayflex® 190 RRIM (20% Mineral)

Polyurethane (Polyether, MDI)

Covestro - PUR

Message:

Bayflex 190 is an ELPO (electrophoresis-capable) high-performance polyurea with excellent heat stability, low moisture absorption, low thermal expansion characteristics, and excellent impact resistance. Parts made from this material have superior surface and paint adhesion qualities and have a DOI (Distinction of Image) comparable to painted steel parts. The Bayflex 190 system is an excellent choice for applications such as truck fenders and tailgates. As with any product, use of the Bayflex 190 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.
Bayflex 190 is a formulated RIM system, supplied as two liquid components. Component A is a diphenylmethane diisocyanate (MDI) prepolymer and Component B is a polyether amine system.

General Information			
Filler / Reinforcement	Mineral filler, 20% filler by weight		
Features	Impact resistance, good Sprayable Thermal stability, good Low or no water absorption		
Uses	Application in Automobile Field		
Forms	Liquid		
Processing Method	Reaction Injection Molding (RIM)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.25	g/cm³	ASTM D792, ASTM D1622
Molding Shrinkage - Flow	0.43	%	Internal method
Water absorption-240 hr(3.81 mm)	0.10	%	Internal method
Dart Impact (3.81 mm) [1]	801	J/m	Internal method
Heat Sag - 6 in Overhang [2]			ASTM D3769
191°C, 3.81 mm	3.60	mm	ASTM D3769
250°C, 3.81 mm	0.500	mm	ASTM D3769
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break, 3.81 mm)	37.9	MPa	ASTM D638
Tensile Elongation (Break, 3.81 mm)	40	%	ASTM D638
Flexural Modulus			ASTM D790
-30°C, 3.81 mm	2760	MPa	ASTM D790
23°C, 3.81 mm	1720	MPa	ASTM D790
65°C, 3.81 mm	1100	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break, 3.81 mm)	37.9	MPa	ASTM D412
Tensile Elongation (Break, 3.81 mm)	40	%	ASTM D412
Tear Strength [3] (3.81 mm)	97.2	kN/m	ASTM D624
Thermal	**Nominal Value**	**Unit**	**Test Method**

CLTE - Flow (3.81 mm)	3.8E-5	cm/cm/°C	ASTM D696

Thermoset	Nominal Value	Unit	Test Method
Thermoset Components [4]			
Component a	Mixing ratio by weight: 120		
Component B	Mixing ratio by weight: 100		

Additional Information	Nominal Value	Unit	Test Method

Part A
Type: Isocyanate
Appearance: Colorless to light yellow liquid
Specific Gravity @ 25°C: 1.21
Viscosity @25°C: 600 mPa-s
Flash Point PMCC: 220 °C
Part B
Type: Polyol
Appearance: Yellow to amber liquid
Specific Gravity @ 25°C: 1.02
Viscosity @25°C: 800 mPa-s
Flash Point PMCC: 171 °C
Molding Parameters
Material Temperature - Component A: 27 to 49 °C
Material Temperature - Component B: 46 to 60 °C
Mold Temperature: 74 to 85 °C
shot time: 1.0 to 1.2 sec sec

NOTE	
1.	5 mph
2.	1 hr
3.	C mould
4.	105 Index

Recommended distributors for this material

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