

Baydur® 426 IMR (Continuous Filament Mat)

Polyurethane (MDI)

Covestro - PUR

Message:

Baydur 426 IMR is a polyurethane high density structural RIM (HD SRIM) system used for automotive and light truck applications. This system is well suited for load bearing truck beds, tailgates, bumper beams, load floors, etc. It has excellent heat stability performance. Baydur 426 IMR composites can be used to replace steel or structural plastics for significant weight reduction and lower tooling costs. Due to its inherent nature, this system is corrosion and abrasion resistant.

The Baydur 426 IMR system can be processed with either a closed mold or open mold. This system is combined with a variety of glass reinforcements to make a structural composite. Glass mats, directed chop preforms or glass rovings can be used for reinforcement. This system has the appropriate reaction rate so that it can be used with a chopped glass fiber RIM machine. The Baydur 426 IMR system has an exceptionally long gel time, yet fast cure time, that makes it well suited for large automotive parts.

The Baydur 426 IMR system is supplied as two reactive liquid components. Component A is a polymeric diphenylmethane diisocyanate (PMDI), and Component B is a formulated polyether polyol system. As with any product, use of the Baydur 426 IMR system in a given application must be tested (including field-testing, etc.) in advance by the user to determine suitability.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight		
Features	Good corrosion resistance		
	Good wear resistance		
	Thermal stability, good		
Uses	Metal substitution		
	Application in Automobile Field		
Processing Method	Reaction Injection Molding (RIM)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.50	g/cm³	ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (22°C, 6.00 mm)	180	MPa	ASTM D638
Flexural Modulus (22°C, 6.00 mm)	11500	MPa	ASTM D790
Flexural Strength (22°C, 6.00 mm)	300	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (6.00 mm)	1.5E-5	cm/cm/°C	ASTM D696
Thermoset	Nominal Value		
Thermoset Components			
Component a	Mixing ratio by weight: 170		
Component B	Mixing ratio by weight: 100		
Additional Information			

Part A

Type: Isocyanate

Appearance: Dark brown liquid

Specific Gravity @ 25°C: 1.24

Viscosity @25°C: 200 cps

Flash Point PMCC: 199°C

NCO: 31.0 min wt%

Part B

Type: Polyol

Appearance: Black liquid

Specific Gravity @ 25°C: 1.05

Viscosity @25°C: 2150 cps

Flash Point PMCC: 186°C

Hydroxyl Number: 657 KOH/g

Material Temperatures: 30 to 40°C Mold Temperature: 80 to 100°C Gel Time: 15 to 20 sec Tack-Free Time: 75 to 90 sec

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