

Technical Data Sheet



Premi-glas 1286

Thermoset, Unspecified
LyondellBasell Industries
Engineering Plastics

Product Description

Premi-Glas® 1286 is a fiberglass reinforced thermoset sheet molding compound employing hybrid vinyl ester/polyester resin technology for automotive powertrain and other structural or semi-structural applications.

Key Features and Benefits:

- Excellent thermal properties and elevated temperature modulus retention.
- Replaces cast metals for reduced Noise, Vibration, and Harshness.
- Excellent resistance to automotive chemicals and salt spray.
- Meets the requirements of GMP.UP.018 and other specs.
- Designed for compression molding of large-span valve covers.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber
Features	• Chemical Resistant • Noise Damping • Vibration Damping • High Strength • Salt Water/Spray Resistant
Uses	• Automotive Under the Hood • Sheet • Structural Parts
Forms	• SMC - Sheet Molding Compound
Processing Method	• Compression Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.82	1.81 g/cm ³	
Water Absorption (24 hr, 73°F (23°C))	0.10 %	0.10 %	ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ISO 527-1
73°F (23°C), Compression Molded	2.03E+6 psi	14000 MPa	
302°F (150°C), Compression Molded	1.35E+6 psi	9300 MPa	
Tensile Stress			ISO 527-2
Yield, 73°F (23°C), Compression Molded	11600 psi	80.0 MPa	
Yield, 302°F (150°C), Compression Molded	9280 psi	64.0 MPa	
Flexural Modulus			ISO 178
73°F (23°C), Compression Molded	1.89E+6 psi	13000 MPa	
302°F (150°C), Compression Molded	1.16E+6 psi	8000 MPa	
Flexural Stress			ISO 178
73°F (23°C), Compression Molded	29000 psi	200 MPa	
302°F (150°C), Compression Molded	15700 psi	108 MPa	
Poisson's Ratio	0.30	0.30	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Unnotched Izod Impact (Compression Molded)	25 ft·lb/in	1400 J/m	ASTM D4812
Multi-Axial Instrumented Impact Energy			ISO 6603-2
Compression Molded, Energy to Peak Force	5.75 ft·lb	7.80 J	
Compression Molded, Total Penetration Energy	13.9 ft·lb	18.8 J	
High Speed Impact			ISO 6603-2
Deflection at Peak Load	0.19 in	4.90 mm	
Impact at Peak Load	741.9 lbf	3300 N	

Technical Data Sheet

**Premi-glas 1286**

Thermoset, Unspecified
LyondellBasell Industries
Engineering Plastics

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	410 °F	210 °C	ISO 6721
CLTE			
Flow	1.1E-5 in/in/°F	2.0E-5 cm/cm/°C	
Transverse	1.9E-5 in/in/°F	3.5E-5 cm/cm/°C	
Thermal Conductivity	3.1 Btu·in/hr/ft²/°F	0.45 W/m/K	

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

© LyondellBasell Industries Holdings, B.V. 2024

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.