PREMIX
SHAPING THE WORLD OF COMPOSITES

Premi-Glas® 1286
Sheet Molding Compound

Technical Data Sheet

Typical Application — Composite Powertrain/Structural

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.

Typical Values. Mechanical values are for Specimens cut from Compression-Molded panels.			
Properties	Test Method	Values (US)	Values (Metric)
Flexural Strength, RT	ISO 178	29,000 psi	200 MPa
Flexural Modulus, RT	ISO 178	1.9×10^6 psi	13 GPa
Flex Strength, 150 deg C	ISO 178	16,000 psi	108 MPa
Flex Modulus, 150 deg C	ISO 178	1.2×10^6 psi	8 GPa
Tensile Strength, RT	ISO 527	12,000 psi	80 MPa
Tensile Modulus, RT	ISO 527	2.0×10^6 psi	14 GPa
Tensile Strength, 150 deg C	ISO 527	9,300 psi	64 MPa
Tensile Modulus, 150 deg C	ISO 527	1.35×10^6 psi	9.3 GPa
Unnotched Impact	ASTM D 4812	25 ft*lb/in	1350 Joules/m
Water Absorption	ISO 62	0.1%	0.1%
Glass Transition Temperature (Tg)	ISO 6721 DMS	410 deg F	210 deg C
High Speed Impact, deflection at max load	ISO 6603-2	0.19 in	4.9 mm
High Speed Impact, impact at max load	ISO 6603-2	740 lbs	3.3 KN
High Speed Impact, energy at max load	ISO 6603-2	5.8 ft*lb	7.8 Joules
High Speed Impact, total energy	ISO 6603-2	13.9 ft*lb	18.8 Joules

This SMC product is generally intended to be compression molded in matched metal die molds, typically at 300°F (150°C) and 500 to 1000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process. Nominal values for polymerization shrinkage (0.001 in/in) and specific gravity (1.82) may be customized for individual applications. Contact your Premix sales representative for specific design recommendations.

Following physical characteristics are typical of this product:

CLTE, XY direction: 20 ppm/ deg C
CLTE, Z direction: 35 ppm/deg C
Thermal Conductivity: 0.45 W/m*deg K
Poisson's Ratio: 0.3