MNL025

Material Datasheet

Material Description & Properties

Mechanical properties of the core material

Density (Kg/m^3)	ASTM C271	220-260
Compressive strenght (MPa)	ASTM C365	0,6*
Compressive modulus (MPa)	ASTM C365	6,9*
Tensile strenght (MPa)	ASTM C273	0,7*
Shear strenght (MPa)	ASTM C273	1,0*
Shear modulus (MPa)	ASTM C273	6,0*
Thermal conductivity (W/mK)	ASTM E1530	0,046*
Loss factor (at 1Hz)	ASTM D5023	0,086*

Mechanical properties of the core material in a composite [1]

Flexural strenght at yield (MPa)	ASTM D790	63*
Flexural modulus (GPa)	ASTM D790	4,3*
Shear strenght at yield (MPa)	ASTM C392	0,9*
Shear modulus (MPa)	ASTM C392	38*
Compressive strenght at yield (MPa)	ASTM C365	2,5*
Compressive modulus (MPa)	ASTM C365	26*
Water absorption (%)	ASTM C272	<4*
Panel density	-	0,630*

[1] Samples made by Infusion (0.6 bar) with epoxy resin ref. SR8100/cat ref. SD8824 and two layers of 300g/m^2 glass fibre roving, on each side, sandwich thickness: 6,5 mm; cure at 60ºC; samples tested after 5 days of manufacturing. * Typical values

Flexibility and excellent conformability make **MNL025** possible to be easily integrated into fast production cycles. This product can be processed by hand layup, vacuum bagging and infusion processes and will withstand manufacturing temperatures up to 150ºC.

The unique properties of **MNL025** such as: a closed air filled cell structure, low water absorption, rot resistance and high level of noise and vibration attenuation make it an excellent core material for the composites industry - perfectly aligned with the new green classifications.

Key features

- Good drapeability
- Print blocking capability
- Stable material
- Lower resin consumption
- Resin compatibility (Excelent for: Epoxy, Polyester, Phenolic, Vynilester and Polyurethane)

Lightweight

Thermal insulation

Vibration damping

Sustainable and energy efficient