



INDEMAT

INVESTIGACIÓN Y DESARROLLO DE
MATERIALES TECNOLÓGICOS

GRP plates



GRP plates

Plates made of glass fibre composite material

Using Flex-Molding technology, the process guarantees a high fibre content of approximately 70% and tensile strength, eliminating the material's own shrinkage.

- Isophthalic resin, up to 76 °C, Vinylester up to 111 °C.
- Thicknesses between 1 to 100mm.
- Maximum dimension 4000x1550mm (Can be cut to size).
- Standard colour translucent.
- Assembly and bonding of parts and assemblies.

Advantages

- High mechanical strength.
- UV resistant.
- Lightness and rigidity.
- Corrosion resistant.
- High chemical resistance.
- Variety of thicknesses.
- Variety of surface finish.

Opcionals

- Painted on one or both sides. Standard colour: RAL 7005 Mouse Grey (other colours on special request).
- Lightweight sheets with polyurethane (PUR) core, polypropylene (PP) honeycomb and hexagonal-cell non-woven polyester core.
- Anti-slip plate, with sand and gel coat
- Vinylester plate for increased chemical resistance.



Flat plate

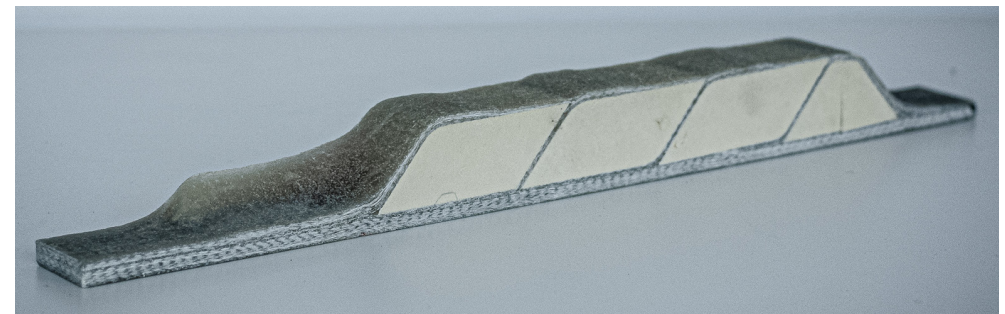
Vinylester resin

Indemat's composite material is manufactured using the innovative technique of Vacuum Assisted Resin Transfer Moulding (VARTM). It is formulated with a matrix of unsaturated polyester resin type epoxy vinylester bisphenol-A that provides excellent chemical resistance and protection against ageing.

In addition, it is laminated with ECR-type glass fibre reinforcement, which gives it outstanding mechanical strength and prevents corrosion.

A coupling agent is used to ensure perfect adhesion between the matrix and the reinforcement, thus avoiding possible delaminations in the composite.

Property	Certified	Value	Unit
Barcol hardness	EN ISO 53270	≥60	Barcol
Glass mass content	EN ISO 3451-1	[67.3±0.6]	%
Traction Resistance	EN ISO 527-4	[306±28]	MPa
Elastic module	EN ISO 527-4	[24.4±2.0]	GPa
Deformation at break	EN ISO 527-4	[2.8±0.6]	%
Bending modulus	EN ISO 14125	[18.6±1.4]	GPa
HDT	EN ISO 75-3	[111±2]	°C
Density Composite	EN ISO 1183-1, Método A	[2.24±0.04]	t/m ³
H ₂ O absorption (9 months)	EN ISO 62, Método 1	≤1	%
Thermal Conductivity Coefficient	EN ISO 22007-2	0,4593	W/m·K
Thermal Conductivity Coefficient with PUR	EN ISO 11357-3	0.02694	W/m·K



*GRP plate density 80

Flat plate

Isophthalic resin

Indemat's composite material is manufactured using the innovative technique of Vacuum Assisted Resin Transfer Moulding (VARTM). It is formulated with an isophthalic unsaturated polyester resin matrix, which provides excellent chemical resistance and protection against ageing.

In addition, it is laminated with ECR-type glass fibre reinforcement, which gives it outstanding mechanical strength and prevents corrosion.

A coupling agent is used to ensure perfect adhesion between the matrix and the reinforcement, thus avoiding possible delaminations in the composite.

Property	Certified	Value	Unit
Barcol hardness	EN ISO 53270	≥60	Barcol
Glass mass content	EN ISO 3451-1	[67.3±0.6]	%
Traction Resistance	EN ISO 527-4	[306±28]	MPa
Elastic module	EN ISO 527-4	[24.4±2.0]	GPa
Deformation at break	EN ISO 527-4	[2.8±0.6]	%
Bending modulus	EN ISO 14125	[18.6±1.4]	GPa
HDT	EN ISO 75-3	[76±1]	°C
Density Composite	EN ISO 1183-1, Método A	[2.24±0.04]	t/m ³
H ₂ O absorption (9 months)	EN ISO 62, Método 1	≤1	%
Coef. Cond. Térmica	EN ISO 22007-2	0,4593	W/m·K
Coef. Cond. Térmica; P. Burgos	EN ISO 11357-3	0.02694	W/m·K



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