

Description

A unique closed cell, cross-linked polymer foam that combines high stiffness and strength to weight ratios with superior toughness. It is non-friable, contains no CFC's, has negligible water absorption, and provides an excellent resistance to chemicals. A fine cell structure offers an excellent bonding surface that is compatible with most resins and manufacturing processes. It is ideally suited as a core material for a wide variety of light-weight sandwich structures subjected to both static and dynamic loads in service.

Applications

Marine

Hulls, decks, bulkheads, superstructures, interiors

Road and Rail

Roof panels, interiors, floors, doors, partition walls, side skirts

Wind Energy

Rotor blades, nacelles, turbine generator housings

Air

General aviation (sport aircraft) parts, galley carts

Recreation

Surfboards, snowboards, wakeboards

Industrial

Tooling, tanks, ductwork, containers, covers

Charakteristik

- **high strength and stiffness to weight ratios**
- **good impact strength**
- **low resin absorption**
- high fatigue resistance
- good fire performance (self-extinguishing)
- sound and thermal insulation
- non biodegradable
- good styrene resistance

Processing

- contact molding (hand/spray)
- vacuum infusion
- resin injection (RTM)
- adhesive bonding
- pre-preg processing
- thermoforming

Properties	Certificate	Unit	Value ¹⁾	AIREX® C70.55	AIREX® C70.75
Density	ISO 845	kg/m ³	Average typ. range	60 54 - 69	80 72 - 92
Compressive strength perpendicular to the plane	ISO 844	N/mm ²	Average Minimum	0.90 0.75	1.45 1.10
Compressive modulus perpendicular to the plane	DIN 53421	N/mm ²	Average Minimum	69 55	104 80
Tensile strengt in the plane	ISO 527 1-2	N/mm ²	Average Minimum	1.3 1.0	2.0 1.6
Tensile modulus in the plane	ISO 527 1-2	N/mm ²	Average Minimum	45 35	66 50
Shear strength	ISO 1922	N/mm ²	Average Minimum	0.85 0.70	1.2 1.0
Shear modulus	ASTM C393	N/mm ²	Average Minimum	22 18	30 24
Shear elongation at break	ISO 1922	%	Average Minimum	16 10	18 10
Thermal conductivity at room temperature	ISO 8301	W/m.K	Average	0.031	0.033
Standard sheet					
Width		mm ± 5		1150	1020
Length		mm ± 5		2450 ²⁾	2180
Thickness		mm ± 0.5		5 to 70	3 to 68
Block					
Thickness		mm ± 2		78	72
Scrim-cloth (sc)					
Width		mm ± 10		600 or 1200	510 or 1020
Length		mm ± 10		1140	1080
Thickness		mm ± 0.5		5 to 70	3 to 68
Colour				yellow	green

Finishing options, other dimensionen and closer tolerances upon request.

¹⁾ Minimum values for DNV definition, specimen thickness 20 mm except tensile properties (10mm) and pressure module (40mm) ²⁾ Half size plane sheets for thickness ≤ 8mm

The data provided gives approximate values for the nominal density and DNV minimum values according DNV type approval certificate.

The information contained herein is believed to be correct and to correspond to the latest state of scientific and technical knowledge. However, no warranty is made, either expressed or implied, regarding its accuracy or the results to be obtained from the use of such information. No statement is intended or should be construed as a recommendation to infringe any existing patent.

TAKE LESS WEIGHT.