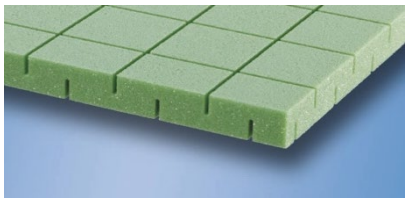
AIREX® C70

GM--TDS-094

Universal Structural Foam

DATA SHEET 09.2026 - Replaces 08.2022

DESCRIPTION



AIREX® C70 is a closed cell, cross-linked polymer foam that combines excellent 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. The fine cell structure offers an excellent bonding surface.

Compatible with most resins and manufacturing processes **AIREX® C70** is ideally suited as a core material for a wide variety of sandwich structures subjected to both static and dynamic loads. Thanks to its unique lightness (properties vs. density) C70 is the material of choice for applications where lightweight is a priority.

CHARACTERISTICS

- Outstanding strength and stiffness to weight ratios
- Good impact strength
- Low resin absorption
- High fatigue resistance
- Good fire performance (self-extinguishing)
- High sound and thermal insulation
- Good styrene resistance

APPLICATIONS

- **Marine:** Hulls, decks, bulkheads, superstructures, interiors
- **Road and Rail:** Roof panels, interiors, floors, doors, partition walls, side skirts, front-ends
- **Wind energy:** Rotor blades, nacelles, turbine generator housings
- **Aircraft and Aerospace:** Interiors, radomes, galley carts, general aviation (fuselage and wing)
- **Recreation:** Skis, snowboards, surfboards, wakeboards, canoes, kayaks
- **Industrial:** Tooling, tanks, ductwork, containers, covers

PROCESSING*

- Contact molding (hand/spray)
- Vacuum infusion
- Resin injection (RTM)
- Adhesive bonding
- Pre-preg processing
- Thermoforming

*For details refer to AIREX® Processing Guidelines.

Europe | Middle East | India | Africa
Airex AG
5643 Sins, Switzerland
T +41 41 789 66 00
corematerials@3AComposites.com

North America | South America
Baltek Inc.
Colfac, NC 27235, USA
T +1 336 398 1900
corematerials.americas@3AComposites.com

Asia | Australia | New Zealand
3A Composites (China) Ltd.
201201 Shanghai, China
T +86 21 585 86 006
corematerials.asia@3AComposites.com

AIREX®

3A COMPOSITES CORE MATERIALS

MECHANICAL PROPERTIES							
Typical properties		**Unit (metric)**	**Value[1)]**	**AIREX® C70.55**	**AIREX® C70.75**	**AIREX® C70.90**	**AIREX® C70.130**
Density	ISO 845	kg/m³	Average *Typ. range*	60 *54 - 69*	80 *72 - 92*	100 *90 - 115*	130 *120 - 150*
Compressive strength	ISO 844	N/mm²	Average *Minimum*	0.90 *0.75*	1.45 *1.10*	2.0 *1.7*	3.0 *2.6*
Compressive modulus	ISO 844	N/mm²	Average *Minimum*	69 *55*	104 *80*	130 *110*	170 *145*
Tensile strength	ASTM C297	N/mm²	Average *Minimum*	1.6 *1.2*	2.4 *1.9*	3.1 *2.4*	4.3 *3.4*
Tensile modulus	ASTM C297	N/mm²	Average *Minimum*	95 *70*	125 *100*	160 *125*	210 *170*
Shear strength	ISO 1922	N/mm²	Average *Minimum*	0.85 *0.70*	1.2 *1.0*	1.7 *1.4*	2.4 *2.1*
Shear modulus	ISO 1922	N/mm²	Average *Minimum*	19 *16*	26 *21*	35 *29*	47 *39*
Shear elongation at break	ISO 1922	%	Average *Minimum*	16 *9*	18 *10*	23 *12*	30 *20*
Thermal conductivity at room temperature	ISO 8301	W/m.K	Average	0.031	0.033	0.035	0.039
Standard sheet	Width	mm ± 5		1150	1020	950	850
	Length	mm +10 / -5		2450	2180	2050	1900
	Thickness	mm ± 0.5		3 to 70	3 to 68	3 to 60	3 to 50

Finishing Options, other dimensions, and closer tolerances upon request.

[1)] Values acc. DNV-GL definition; density and compressive properties are measured with a specimen of at least 40 mm thickness (from center position of a block).

The data provided gives approximate values for the nominal density and DNV-GL minimum values according to DNV-GL 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.

AIREX®

3A COMPOSITES CORE MATERIALS

MECHANICAL PROPERTIES							
Typical properties		**Unit (imperial)**	**Value**[1)]	**AIREX® C70.55**	**AIREX® C70.75**	**AIREX® C70.90**	**AIREX® C70.130**
Density	ISO 845	lb/ft³	Average *Typ. range*	3.7 *3.4 – 4.3*	5.0 *4.5 – 5.7*	6.2 *5.6 – 7.2*	8.1 *7.5 – 9.4*
Compressive strength	ISO 844	psi	Average *Minimum*	130 *109*	210 *160*	290 *247*	435 *377*
Compressive modulus	ISO 844	psi	Average *Minimum*	10'000 *7'975*	15'080 *11'600*	18'850 *15'950*	24'650 *21'025*
Tensile strength	ASTM C297	psi	Average *Minimum*	232 *174*	350 *275*	450 *350*	620 *490*
Tensile modulus	ASTM C297	psi	Average *Minimum*	13'780 *10'150*	18'130 *14'500*	23'200 *18'130*	30'450 *24'650*
Shear strength	ISO 1922	psi	Average *Minimum*	123 *102*	175 *145*	247 *203*	348 *305*
Shear modulus	ISO 1922	psi	Average *Minimum*	2'750 *2'320*	3'770 *3'045*	5'050 *4'200*	6'800 *5'650*
Shear elongation at break	ISO 1922	%	Average *Minimum*	16 *9*	18 *10*	23 *12*	30 *20*
Thermal conductivity at room temperature	ISO 8301	BTU.in/ft².hr.°F	Average	0.21	0.23	0.24	0.27
Standard sheet	Width	in ± 0.2		45.3	40.2	37.4	33.5
	Length	in +0.4 / -0.2		96.5	85.8	80.7	74.8
	Thickness	in ± 0.02		0.12 to 2.8	0.12 to 2.7	0.12 to 2.4	0.12 to 2

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