

3A Composites Core Materials AIREX® C70.55 Universal Structural Foam

Category : Other Engineering Material , Composite Core Material , Polymer

Material Notes:

AIREX® C70 is a closed cell, crosslinked 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. A 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 lightweight sandwich structures subjected to both static and dynamic loads.

Characteristics outstanding strength and stiffness to weight ratios Good impact strength Low resin absorption High fatigue resistance Good fire performance (self-extinguishing) 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 Aircraft: Interiors, radomes, galley carts, general aviation (fuselage and wing) Recreation: Skis, snowboards, surfboards, wakeboards, canoes, kayaks Industrial: Tooling, tanks, ductwork, containers, covers

Order this product through the following link:

http://www.lookpolymers.com/polymer_3A-Composites-Core-Materials-AIREX-C7055-Universal-Structural-Foam.php

Physical Properties	Metric	English	Comments
Density	0.0600 g/cc	0.00217 lb/in ³	average; ISO 845
	0.0540 - 0.0690 g/cc	0.00195 - 0.00249 lb/in ³	typical range; ISO 845

Mechanical Properties	Metric	English	Comments
Tensile Strength	>= 1.00 MPa	>= 145 psi	in the plane; ISO 527 1-2
	1.30 MPa	189 psi	average; in the plane; ISO 527 1-2
Elongation at Break	>= 10 %	>= 10 %	shear; ISO 1922
	16 %	16 %	average; shear; ISO 1922
Tensile Modulus	>= 0.0350 GPa	>= 5.08 ksi	in the plane; ISO 527 1-2
	0.0450 GPa	6.53 ksi	average; in the plane; ISO 527 1-2
Compressive Strength	>= 0.750 MPa	>= 109 psi	perpendicular to plane; ISO 844
	0.900 MPa	131 psi	average; perpendicular to plane; ISO 844
Compressive Modulus	>= 0.0550 GPa	>= 7.98 ksi	perpendicular to plane; DIN 53421
	0.0690 GPa	10.0 ksi	average; perpendicular to plane; DIN 53421
Shear Modulus	>= 0.0180 GPa	>= 2.61 ksi	ASTM C393
	0.0220 GPa	3.19 ksi	average; ASTM C393

Mechanical Properties	Metric	English	Comments
Shear Strength	0.700 MPa	101.02 psi	ISO 1922
	0.850 MPa	123 psi	average; ISO 1922

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.0310 W/m-K	0.215 BTU-in/hr-ft ² -°F	ISO 8301

Descriptive Properties	Value	Comments
Color	yellow	

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