

3A Composites Core Materials AIREX® C70.48 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-C7048-Universal-Structural-Foam.php

Physical Properties	Metric	English	Comments
Density	0.0480 g/cc	0.00173 lb/in ³	average; ISO 845
	0.0430 - 0.0550 g/cc	0.00155 - 0.00199 lb/in ³	typical range; ISO 845

Mechanical Properties	Metric	English	Comments
Tensile Strength	>= 0.800 MPa	>= 116 psi	in the plane; ISO 527 1-2
	0.950 MPa	138 psi	average; in the plane; ISO 527 1-2
Elongation at Break	>= 8.0 %	>= 8.0 %	shear; ISO 1922
	10 %	10 %	average; shear; ISO 1922
Tensile Modulus	>= 0.0280 GPa	>= 4.06 ksi	in the plane; ISO 527 1-2
	0.0350 GPa	5.08 ksi	average; in the plane; ISO 527 1-2
Compressive Strength	>= 0.500 MPa	>= 72.5 psi	perpendicular to plane; ISO 844
	0.600 MPa	87.0 psi	average; perpendicular to plane; ISO 844
Compressive Modulus	>= 0.0350 GPa	>= 5.08 ksi	perpendicular to plane; DIN 53421
	0.0480 GPa	6.96 ksi	average; perpendicular to plane; DIN 53421
Shear Modulus	>= 0.0140 GPa	>= 2.03 ksi	ASTM C393
	0.0160 GPa	2.32 ksi	average; ASTM C393

Mechanical Properties	Metric	English	Comments
Shear Strength	0.550 MPa	79.8 psi	ISO 1922
	0.550 MPa	79.8 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	violet	

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