3A Composites Core Materials AIREX® C71.55 Elevated Temperature Structural Foam

Category : Other Engineering Material , Composite Core Material , Polymer

Material Notes:

AIREX® C71 is a closed cell, crosslinked polymer foam especially formulated to maintain its stability also at higher processing or service temperatures. It 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® C71 is ideally suited as a core material for a wide variety of lightweight sandwich structures subjected to both static and dynamic loads, and exposed to elevated temperatures during manufacturing.Characteristicsoutstanding strength and stiffness to weight ratiosHigh temperature resistanceGood impact strengthHigh fatigue resistanceLow resin absorption (fine cell structure)Good fire performance (self-extinguishing)Sound and thermal insulationGood styrene resistanceDimensionally stable and non biodegradableApplicationsWind Energy: Rotor blades, nacelles, turbine generator housingsRoad and Rail: Roof panels, interiors, floors, doors, partition walls, side skirts, front-endsMarine: Hulls, decks, bulkheads, superstructures, engine hatchesAircraft: Interiors, radomes, galley carts, general aviation (sport aircraft)Recreation: Skis, snowboards, surfboards, wakeboards, canoes, kayaksIndustrial: Tooling, tanks, ductwork, containers, covers

Order this product through the following link:
http://www.lookpolymers.com/polymer_3A-Composites-Core-Materials-AIREX-C7155-Elevated-Temperature-Structural-Foam.php

Physical Properties	Metric	English	Comments
Density	0.0600 g/cc	0.00217 lb/in³	average; ISO 845
	0.0540 - 0.0690 g/cc	0.00195 - 0.00249 lb/in³	typical range; ISO 845

Mechanical Properties	Metric	English	Comments
Tensile Strength	>= 1.00 MPa	>= 145 psi	in the plane; ISO 527 1-2
	1.50 MPa	218 psi	average; in the plane; ISO 527 1-2
Elongation at Break	>= 15 %	>= 15 %	shear; ISO 1922
	25 %	25 %	average; shear; ISO 1922
Tensile Modulus	>= 0.0300 GPa	>= 4.35 ksi	in the plane; ISO 527 1-2
	0.0420 GPa	6.09 ksi	average; in the plane; ISO 527 1-2
Compressive Strength	>= 0.850 MPa	>= 123 psi	perpendicular to plane; ISO 844
	0.950 MPa	138 psi	average; perpendicular to plane; ISO 844
Compressive Modulus	>= 0.0600 GPa	>= 8.70 ksi	perpendicular to plane; DIN 53421
	0.0700 GPa	10.2 ksi	average; perpendicular to plane; DIN

Mechanical Properties	Metric	English	Comments
Shear Modulus	>= 0.0180 GPa	>= 2.61 ksi	ASTM C393
	0.0215 GPa	3.12 ksi	average; ASTM C393
Shear Strength	>= 0.700 MPa	>= 102 psi	ISO 1922
	0.930 MPa	135 psi	average; ISO 1922

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.0310 W/m-K	0.215 BTU-in/hr-ft²-°F	ISO 8301

Descriptive Properties	Value	Comments
Color	light red	

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