

## 3A Composites Core Materials AIREX® PXc.420 Fiber-Reinforced Structural Foam

Category: Other Engineering Material, Composite Core Material, Polymer

## **Material Notes:**

AIREX® PXc is a closed-cell, fiber reinforced polymer foam with very high mechanical properties ideally suited as core material for structurally loaded sandwich applications. The sophisticated manufacturing process evenly distributes continuous glass fibers throughout the foam generating a very consistent foam with enhanced mechanical properties especially in compression and shear. AIREX® PXc is dimensionally stable, has very low water absorption, and is resistant to chemicals and high temperatures. It is ideally suited as a core material for highly loaded sandwich structures or as a replacement for wood and plywood. CharacteristicsHigh flexural strength and stiffnessReplacement for wood and plywoodGood fastener pull-out strengthHigh heat resistanceCompatible with a wide range of resins and adhesivesDimensionally stableHigh styrene resistanceVery low water absorptionNon biodegradableExcellent chemical resistanceApplicationsMarine: Floors, bulkheads, transoms, stringers, engine beds, interiors, local reinforcements, tooling and moldsRoad and Rail: Floors, sidewalls, roofs, engine covers, interior panelsIndustrial: Covers, tanks, containers, tooling and molds, local reinforcements, architectural panels, sporting goods

Order this product through the following link: http://www.lookpolymers.com/polymer\_3A-Composites-Core-Materials-AIREX-PXc420-Fiber-Reinforced-Structural-Foam.php

Physical Properties	Metric	English	Comments
Density	0.420 g/cc	0.0152 lb/in³	apparent nominal; ASTM C271

Mechanical Properties	Metric	English	Comments
Flexural Strength	12.9 MPa	1870 psi	ASTM D790
	@Thickness 19.0 mm	@Thickness 0.750 in	
Flexural Modulus	0.648 GPa	94.0 ksi	ASTM D790
	@Thickness 19.0 mm	@Thickness 0.750 in	
Compressive Strength	9.50 MPa	1380 psi	perpendicular to plane; ASTM C365
	@Thickness 19.0 mm	@Thickness 0.750 in	
Compressive Modulus	0.326 GPa	47.3 ksi	perpendicular to plane; ASTM C365
	@Thickness 19.0 mm	@Thickness 0.750 in	
Shear Modulus	0.193 GPa	28.0 ksi	ASTM C273
Shear Strength	5.50 MPa	798 psi	ASTM C273

## **Contact Songhan Plastic Technology Co.,Ltd.**

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