

3A Composites Core Materials AIREX® R63.80 Damage Tolerant Foam

Category : Other Engineering Material , Composite Core Material , Polymer , Thermoplastic

Material Notes:

AIREX® R63 is a closed-cell, linear, thermoplastic polymer foam with extremely high damage tolerance. This formula combines high elongation and excellent bond strength. AIREX® R63 is cold formable to simple shapes and thermo-formable to complex three-dimensional curves, and is nonfriable. AIREX® R63 is a core material for dynamically loaded and shock absorbing sandwich structures. Characteristics: Good impact strength (non-brittle failure mode), Easy to thermoform (cold and hot), Dimensionally stable, Excellent fatigue resistance, Outstanding core-to-skin adhesion, Non biodegradable, Good sound and thermal insulation. Applications: Marine: Hull bottoms, hull sides; Road and Rail: Front-ends, side skirts, crash belts; Aircraft: Explosion proof cargo containers; Recreation: Surf boards, canoes, kayaks; Industrial: Containers, shelters, helmets.

Order this product through the following link:

http://www.lookpolymers.com/polymer_3A-Composites-Core-Materials-AIREX-R6380-Damage-Tolerant-Foam.php

Physical Properties	Metric	English	Comments
Density	0.0900 g/cc	0.00325 lb/in ³	average; ISO 845
	0.0800 - 0.120 g/cc	0.00289 - 0.00434 lb/in ³	typical range; ISO 845

Mechanical Properties	Metric	English	Comments
Tensile Strength	>= 1.20 MPa	>= 174 psi	in the plane; ISO 527 1-2
	1.40 MPa	203 psi	average; in the plane; ISO 527 1-2
Elongation at Break	>= 70 %	>= 70 %	shear; ISO 1922
	75 %	75 %	average; shear; ISO 1922
Tensile Modulus	>= 0.0450 GPa	>= 6.53 ksi	in the plane; ISO 527 1-2
	0.0500 GPa	7.25 ksi	average; in the plane; ISO 527 1-2
Compressive Strength	>= 0.700 MPa	>= 102 psi	perpendicular to plane; ISO 844
	0.900 MPa	131 psi	average; perpendicular to plane; ISO 844
Compressive Modulus	>= 0.0450 GPa	>= 6.53 ksi	perpendicular to plane; DIN 53421
	0.0560 GPa	8.12 ksi	average; perpendicular to plane; DIN 53421
Shear Modulus	>= 0.0180 GPa	>= 2.61 ksi	ASTM C393
	0.0210 GPa	3.05 ksi	average; ASTM C393
Shear Strength	>= 0.800 MPa	>= 116 psi	ISO 1922

Mechanical Properties	1.00 MPa Metric	145 psi English	Average: ISO 1922 Comments
Charpy Impact, Notched	0.500 J/cm ²	2.38 ft-lb/in ²	DIN 53453

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.0370 W/m-K	0.257 BTU-in/hr-ft ² -°F	ISO 8301

Descriptive Properties	Value	Comments
Color	brownish yellow	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China