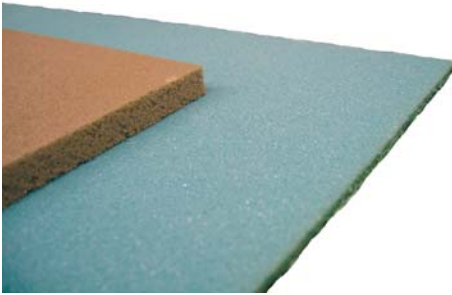


## Vinyl Foam: 1/8 inch, 3 lb. Density

Part # - 1022



Versatile, Formable and Water Resistant.

Closed cell vinyl foam is an excellent core material with superior mechanical properties! When used as a structural sandwich core, this foam provides low weight, excellent stiffness as well as high insulation! This foam is used extensively in aircraft and automotive applications and is compatible with all of our resins. Can also be easily thermoformed with a heat gun or oven! 3 Lb. Density Sheets 32" x 48"

### Applications

This foam has been widely used over many years in virtually every application area where sandwich composites are employed including the marine (leisure, military and commercial), land transportation, wind energy, civil engineering/infrastructure and general industrial markets. In its application range, this foam has the highest strength to density ratio. It exhibits at both ambient and elevated temperatures impressive compressive strength and shear properties. In addition, the ductile qualities of this foam make it ideal for applications subject to fatigue, slamming or impact loads.

Other key features of this foam include consistent high quality, excellent adhesion/peel strength, excellent chemical resistance, low water absorption and good thermal/acoustic insulation. This foam is compatible with virtually all commonly used resin systems (polyester, vinyl ester and epoxy) including those with high styrene contents. Its good temperature performance with high residual strength and good dimensional stability, makes this foam ideal for hand laminating, vacuum bagging, resin transfer molding or vacuum infusion.

### Design Considerations

Continuous operating temperature is -200°C to +70°C (-325°F to +160°F). The foam can be used in sandwich structures, for outdoor exposure, with external skin temperatures up to +85°C (+185°F). Normally this foam can be processed at up to -90°C (+194°F) with minor dimensional changes. Maximum processing temperature is dependent on time, pressure and process conditions. Coefficient of linear expansion: approx.  $22.2 \times 10^{-6}/^{\circ}\text{F}$  ( $40 \times 10^{-6}/^{\circ}\text{C}$ )

Property	Method	Unit	#1022
Nominal Density <sup>1)</sup>	ISO 845	Kg/m <sup>3</sup>	48
		Lb/ft <sup>3</sup>	3.0
Compressive Strength <sup>2)</sup>	ASTM D 1621	MPa	0.6
		psi	87
Compressive Modulus <sup>2)</sup>	ASTM D 1621	MPa	50
		psi	7,250
Tensile Strength <sup>2)</sup>	ASTM D 1623	MPa	1.4
		psi	203
Tensile Modulus <sup>2)</sup>	ASTM D 1623	MPa	55
		psi	7,975
Shear Strength	ASTM C 273	MPa	0.56
		psi	81
Shear Modulus	ASTM C 273	MPa	15
		psi	2,175
Shear Strain	ASTM C 273	%	12

- 1) Typical density variation ±  
 2) Perpendicular to the plane. All values measured at +23°C (73.4°F)