

## GENERAL OVERVIEW

The following tables reflect the general physical, mechanical and solar optical properties of ALSYNITE EVERCOOL.

## PHYSICAL PROPERTIES

Properties	Value	Test Method
Specific Gravity (gm/cc)	1.41	ASTM-D792-86A
Thermal Expansion ( $10^{-5}$ cm/cm/°C)	2.2	ASTM-D696-81
Water Absorption (%)	0.52 to 0.60	ASTM-D570-81
Thermal Conductivity (W/m <sup>2</sup> K)	0.158	ASTM-C177-81
Heat Distortion Temperature (°C)	+180 to 200	ASTM-D648-86
Operating Temperatures (°C)	-20 to +95	-

## MECHANICAL PROPERTIES

Properties	Value	Test Method
Barcol Hardness	Greater than 50	AS/NZS 4256.3
Glass Content (%)	26.3	AS/NZS 4256.3
Tensile Strength (MPa)	94	ASTM D638-89
Flexural Strength (MPa)	177	ASTM D790-86
Flexural Modulus (GPa)	6.7	ASTM D790-86
Mean Impact Strength (J)	8.9	AS/NZS 4256.3
Compressive Strength (MPa)	135	ASTM695-82
Shear Strength (MPa)	90	ASTM732-82
Impact Resistance	PASS	AS/NZS 4256.3

## SOLAR OPTICAL PROPERTIES

Properties	Clear	Opal
Solar transmittance	0.36	0.35
Luminous Transmittance	0.39	0.38
Diffused Light Transmission (%)	40	37
Shading Coefficient	0.49	0.45
U-Value (W/m <sup>2</sup> K)	5.7	5.7
Solar Heat Gain (W/m <sup>2</sup> )	266	256
Solar Heat Gain Coefficient	0.34	0.33
Transmittance 380-320nm (UV - A)	0.04	-
Transmittance 320-280nm (UV - B)	0.006	-

Results of tests are based on a 2400 g/m<sup>2</sup> sheet.