

Technical Data Sheet

Typical Property Values

General Properties	Test Method	Units	ASTARIGLAS®
Relative Density	ISO 1183	g/cm ³	1.19
Water Absorption	ISO 62	%	0.3
Mechanical Properties			
Tensile Strength @23°C	ISO 527	Mpa	70
Elongation at Break @23°C	ISO 527	%	4
Flexural Strength	ISO 178	MPa	114
Flexural Modulus	ISO 178	Mpa	3200
Impact Strength - Charpy-unnotched	ISO 179 / I fu	kJ.m ⁻²	12
Izod Impact Strength, notched	ISO 180/ I A	kJ.m ⁻²	1.4
Rockwell Hardness	ISO 2039-2	M scale	95
Thermal Properties			
Vicat Softening Point	ISO 306 A	°C	>110
Coefficient of Thermal - Expansion-Linear	ASTM D696	x 10 ⁻⁵ . K ⁻¹	7
Flammability UL94 HB	UL94		HB
Optical Properties			
Light Transmission	ASTM D1003	% (3 mm)	>92
Refractive Index	ISO 489 A		1.49
Electrical Properties			
Surface Resistivity	IEC 93	Ω	> 10 ¹⁴
Electrical Strength	IEC 243	kV/mm	30

Note:

The standards values quoted are not always strictly equivalent and based on tests on representative samples. The information given in this publication is based on our general experience and given in good faith. It is intended as a general guide and must not be considered as a binding specification. No warranty is given or is to be implied. In no way does this information incurs the liability of Astari Niagara Internasional, especially in infringement of the rights of a third party.

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Chemical Resistance Properties

Reagent	Change in Appearance
Acetone	Dissolved
Aniline	Dissolved
Aluminium chloride	None
Aluminium oxalate	None
Aluminium sulphate	None
Amonia	None
Aniline	Dissolved
Arsenic	None
Benzene	Dissolved
Bromine	Dissolved
Calcium chloride	None
iso-Octane	None
Ethyl Alcohol (<95%)	None
Ethyl Alcohol (<50%)	None
2-ethylhexylsebacate	None
Hydrochloric acid (s.g. 1.19)	Orange Peel
Hydrochloric acid (<10%)	None
Sodium chloride (<10%)	None
Oleic acid	None
Olive oil	None
Hydrogen peroxide (<28%)	None
Hydrogen peroxide (<3%)	None
Citric acid (<10%)	None
Chromic acid (40%)	Rough surface and yellowish, discoloring
Mineral oil	None
Acetic acid (<5%)	None
Acetic acid (s.g. 1.05)	Dissolved
Ethyl acetate	Dissolved
Carbon tetrachloride	Whitening
Nitric acid(s.g. 1.42)	Dissolved
Sodium hypochlorite	None
Diethyl ether	Crazing
Diemethyl formamide	Dissolved
Ammonium hydroxide(s.g. 0.9)	None
Ammonium hydroxide (10%)	None
Soap aqua solution(1%)	None
Turpentine	None
Toluene	Dissolved
Kerosene	None
Ethylene dichloride	Dissolved
Hydrofluoric acid (<40%)	Swollen,whitening
n-Heptane	None
Phenol	Dissolved
Phenolic solution (<5%)	Swollen slightly

Reagent	Change in Appearance
Glycol	None
Heptane	None
Hexane	None
Iodine	None
Magnesium sulphate	None
Magnesium chloride	None
Manganese sulphate	None
Mercury	None
Methanol, absolute	Dissolved
Methyl Ethyl Keton	Dissolved
Milk of Lime	None
Monobromonaphthalene	None
Nickel sulphate	None
Nitric Acid (<20%)	None
Nitric Acid (20-70%)	Slightly dissolved
Nitric Acid (>70%)	Dissolved
Oxalic acid	None
Perchloroethylen	Dissolved
Petroleum ether	None
Potassium carbonate	None
Potassium chloride	None
Potassium cyanide	None
Potassium dichromate	None
Potassium hidroxide	None
Potassium nitrate	None
Potassium permanganate	None
Silver nitrate	None
Soap solution	None
Soda	None
Sodium bisulphite	None
Sulphur	None
Sulphuric acid (<30%)	None
Tartaric acid	None
Thionyl chloride	None
Xilene	Dissolved
Ferric chloride	None
Ferrous chloride	None
Ferrous sulphate	None
Glycerol	None
Sodium hydroxide (<48%)	None
Sodium hydroxide (<10%)	None
Sodium hydroxide (1%)	None
Sodium carbonate(20%)	None
Sodium carbonate(2%)	None

Thickness Tolerance

Thickness (mm)	Tolerance (+/- mm) For ASTARIGLAS® 2440 x 1220	Tolerance (+/- mm) For ASTARIGLAS® 3050 x 2050	Tolerance (+/- mm) For TESSEMATT® S 3050 x 2050	Tolerance (+/- mm) For TESSEMATT® DS 3050 x 2050
3		0.6	0.7	
4		0.6	0.8	
5		0.7	0.9	0.9
6		0.8	1.0	1.0
8		1.0	1.2	1.2
10		1.2		1.4
12		1.4		1.6
15		1.6		
18		1.8		
20		2.0		
25	1.8	2.2		
30	2.1			
40	2.6			
50	3.0			