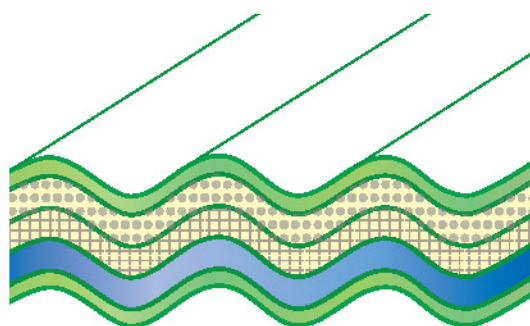


# SPACE™ MOON-LITE Series

## Chemical Resistant Grade

SPACE™ MOON-LITE Series is a premium quality chemical resistant FRP translucent sheet with proven and excellent long term weathering conditions. It features a unique chemical and corrosive resistant resin system. The proven features are backed up by a 20 year performance warranty. It is ideal for use as an alternative to traditional metal roofing systems designed for buildings in corrosive and hazardous environments.



- Garware UV Polyester Film**
  - Bondable & non peelable • UV protected.
  - Glossy lamination protect surface delamination & prolong material lifespan
- Gelcoated Polyester Resin 300 micron**
  - Extra protection against degradation & exposure to harsh chemicals
- E-Glass Chopped Strand Mat**
  - High impact resistance & tensile strength
  - Easy profiling • Even Thickness
- Isophthalic Resin + Light Diffuser Additive**
  - Excellent chemical resistance & anti-corrosion
  - Diffuse light evenly
- Garware Standard Polyester Film**
  - Bondable & non peelable • Allow profile stability
  - Glossy lamination protect surface delamination & prolong material lifespan



Protects against degradation and exposure to harsh chemicals



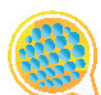
Filters almost 99% of the harmful ultraviolet rays



Big savings in energy costs



Excellent reflection of solar heat and reducing heat transmission



No direct sunlight "shading or spotting" effect



Resistant to numerous kinds of chemicals



Easy installation and maintenance



Long lasting, strong and durable



20 year warranty

### CHEMICAL PROPERTIES

Acid Base Testing	24 hours	Method
Sulfuric Acid 30%	No change	ASTM D 1308
Nitric Acid 10%	No change	ASTM D 1308
Hydrochloric Acid 10%	No change	ASTM D 1308
Sodium Hydroxide 10%	No change	ASTM D 1308



## PRODUCT SPECIFICATIONS

### Description:

SPACE™ Moon-Lite Gel Coat (GC) Fibreglass Reinforced Polyester Translucent Sheet.

### Surface Coating:

**Top:** Garware UV Polyester Film.

Weather surface polyester film incorporates UV inhibitors and offers protection against early yellowing and degradation of surface of the sheet.

**Bottom:** Garware Standard Polyester Film.

Weather surface polyester film incorporates profile stability properties.

### E-Glass Chopped Strand Mat:

Reinforced with high quality E-glass chopped fibre strand mat that has the ingredient of high quality binder which acts as the interlink for their own strength and has a good ability to extend and shrink according to the weathering condition.

### Resin System:

Gelcoated Polyester Resin 300 micron provide extra protection and prolong the material lifespan. Isophthalic Resin is specially designed for corrosion resistant applications. Light diffuser additive enables distribution of light evenly.

### Quality System:

ISO 9001 : 2008 certificate No. 4799

### Profile:

Refer to profiles available.

### Weight:

1800, 2400, 3050, 3600, 4000, 4800 GSM

Other weights are also available on special order.

### Thickness (tolerance of +/- 10%):

- 1800 GSM: 1.2mm
- 2400 GSM: 1.5mm
- 3050 GSM: 1.9mm
- 3600 GSM: 2.0mm
- 4000 GSM: 2.3mm
- 4800 GSM: 3.0mm

### Sheet Length:

Standard sheet length is 11.9M

Other non standard lengths are available subject to minimum order quantity and shipping parameters.

### Colours:

JADE Clear and New Classic Opal.

Other colours are available, subject to minimum order quantity and colour pigment availability.

### Applications:

- Coastal & marine environmental centre
- Corrosive chemical processing plant
- Fertiliser & agricultural chemical factory
- Mining industry
- Paper & pulp industry
- Petrochemical industry
- Sea water desalination (salt extraction) plant
- Waste processing plant
- Water treatment plant

## PHYSICAL PROPERTIES

Properties	1800 GSM	2400 GSM	3600 GSM	Method
Tensile Strength (MPa)	80	99	126	ASTM D 5083
Impact Strength (KJ/m <sup>2</sup> )	55	65	98	ASTM D 256
Modulus of Elasticity (MPa)	6480	7840	9000	ASTM D 5083
Flexural Strength (MPa)	295	216	162	ASTM D 790
Specific Gravity at 23°C	1.08	1.44	2.16	ASTM D 792
Thermal Conductivity (watt/mK)	0.029	0.031	0.040	ASTM C 177
Water Absorption in 24hrs/23°C (%)	0.17	0.20	0.28	ASTM D 570

## LOAD DEFLECTION PROPERTIES

Properties	1800 GSM	2400 GSM	3600 GSM	Method
Load Deflection $\leq 15$ mm	10.0 mm	6.3 mm	3.7 mm	BS 4154 : Part 1 : 1985

## LIGHT TRANSMISSION PROPERTIES

Colour	1800 GSM	2400 GSM	Method
JADE Clear	67%	63%	ASTM D 1003 - 2007
New Classic Opal	54%	53%	ASTM D 1003 - 2007

## SOLAR TRANSMISSION PROPERTIES

Colour	Grammage	Solar Direct Transmittance	Ultra Violet Transmittance	Total Solar Energy Transmittance	Method
JADE Clear	1800 GSM	11.4%	0.01%	0.32	ISO 9050 : 2003
JADE Clear	2400 GSM	6.34%	0.01%	0.30	ISO 9050 : 2003

## THERMAL INSULATION PROPERTIES

Colour	Grammage	Thermal Conductivity (k - value)	Resistance of Heat Transmission (R <sub>a</sub> - Value)	Thermal Transmittance (U - Value)	Method
JADE Clear	1800 GSM	0.04 W/m.k	0.16 m <sup>2</sup> .K/W	6.21 W/m <sup>2</sup> .K	ISO 8990 : 1994

## FLAMMABILITY PROPERTIES

Colour	Grammage	Linear Burning Rate	Method
JADE Clear	1800 GSM	25 mm / min	ASTM D 635 - 2010
JADE Clear	2400 GSM	21 mm / min	ASTM D 635 - 2010