



World class Fibreglass Technology

# Revolutionary Webglas GC solves roofing problems in highly corrosive environments!

**'Webglas GC' polyester sheeting is reinforced with heavy gauge woven web matting that acts as a built-in safety mesh. 'Webglas GC' fully complies, without restriction, to the requirements of Class 2 to Class 9 buildings of the Building Code of Australia.**



**With a 20 Year Warranty.**

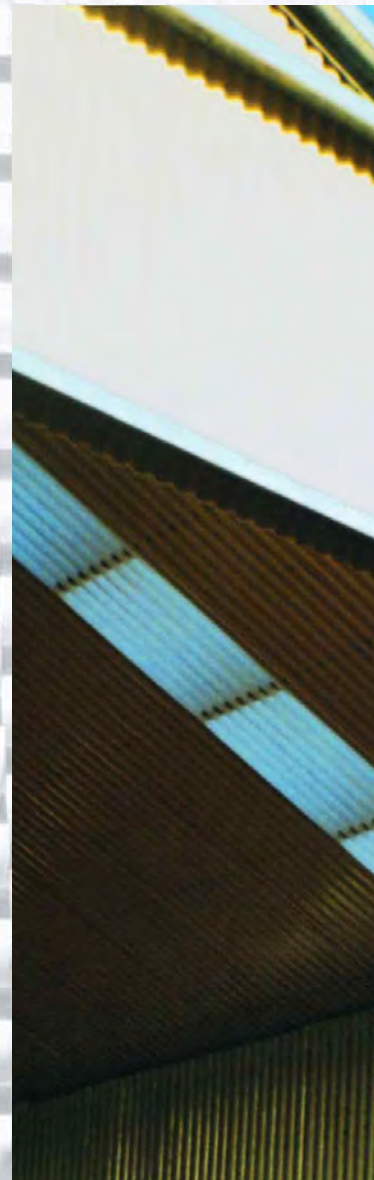


# Why Webglas GC provides superior performance and durability to traditional building products.

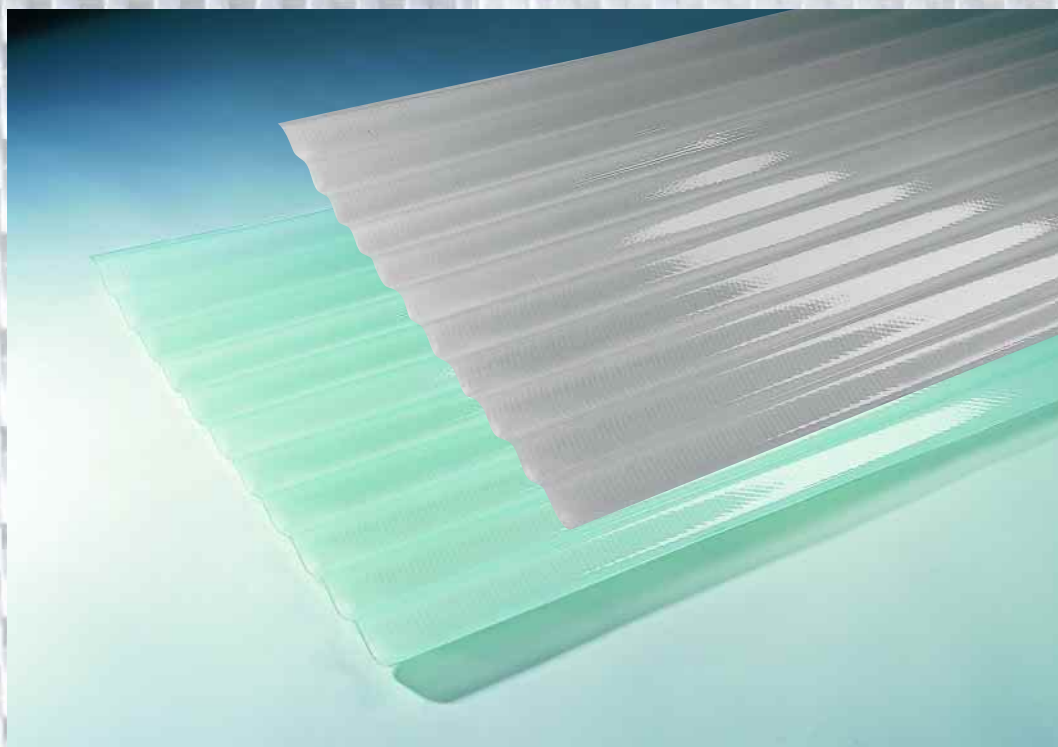
'Webglas GC' (GC = gel coated surface) is proving its worth in buildings where metal and other roofing or wall cladding materials deteriorate or corrode at an unacceptable rate. The sheet weight is 3660 grams per square metre and embodies a heavy gauge woven glass mat which provides continuous reinforcement in every direction. The overall strength is such, that wire safety mesh is not required. This is a particularly important benefit in aggressive and corrosive environments that can quickly destroy metal.

Where corrosion resistance is vital, complete buildings may be clad and roofed with 'Webglas GC' which can be 100% opaque, or translucent to transmit natural light. For extreme environments, where high levels of acids or alkalines may occur, 'Webglas GC+' which incorporates vinyl ester resins, will provide additional protection. What really sets Webglas apart from traditional building materials is its combination of strength, resistance to a wide range of chemicals and low surface erosion. The Warranty covers surface erosion for 20 years

The special resin technology used in the highly UV resistant surface coating is the same as that used for Ampelite's premium grade 'Wonderglas GC', now very widely used in major projects around Australia. 'Webglas GC' therefore provides low maintenance roofing and cladding guaranteed for a specific lifetime.



Ammonium Suphate Storage Building. Murrin Murrin Nickel Mine, W.A.



Opaque and translucent panels

### Stability

#### Material Comparisons

	Webglas GC	Fibreglass	Polycarbonate	P.V.C.	Steel	Aluminium
Thermal Expansion 0°C to 40°C temperature variation. Based on a sheet length of 12 metres.	9.1 mm	14.4 mm	32.4 mm	30.2 mm	5.8 mm	11.5 mm
Thermal co-efficient 2.4 x 10 <sup>-5</sup>	1.9 x 10 <sup>-5</sup> cm/cm °C	3.0 x 10 <sup>-5</sup> cm/cm °C	6.75 x 10 <sup>-5</sup> cm/cm °C	6.3 x 10 <sup>-5</sup> cm/cm °C	cm/cm °C	1.2 x 10 <sup>-5</sup> cm/cm °C
Thermal conductivity	0.096 W/m.K	0.158 W/m.K	0.21 W/m.K	0.15 W/m.K	47.5 W/m.K	23.5 W/m.K
Density	1685 kg/m <sup>3</sup>	1400 kg/m <sup>3</sup>	1200 kg/m <sup>3</sup>	1380 kg/m <sup>3</sup>	7850 kg/m <sup>3</sup>	2850 kg/m <sup>3</sup>

### Span and Fastener Table

Sheet application	Fastener Spacing	No. of Fixings M <sup>2</sup>	Skylight Strip		*Complete Roof
			1.0 kPA	2.0 kPA	Maximum
Corrugated.	every 2nd crest	6.5	1.9 m	1.5 m	1.5 m
5 Rib	every crest	5.2	2.1 m	1.6 m	1.7 m
Spandek	every 3rd crest	3.8	2.2 m	1.6 m	1.9 m
Super 6	every 2nd crest	3.3	2.6 m	2.0 m	2.1 m
LT7	every 2nd crest	3.9	2.1 m	1.6 m	1.7 m
Box Rib 5	every crest	5.4	2.2 m	1.8 m	1.9 m

\*Maximum span for complete 'WebglasGC' roof, allowing for concentrated load as per ASI 170.2

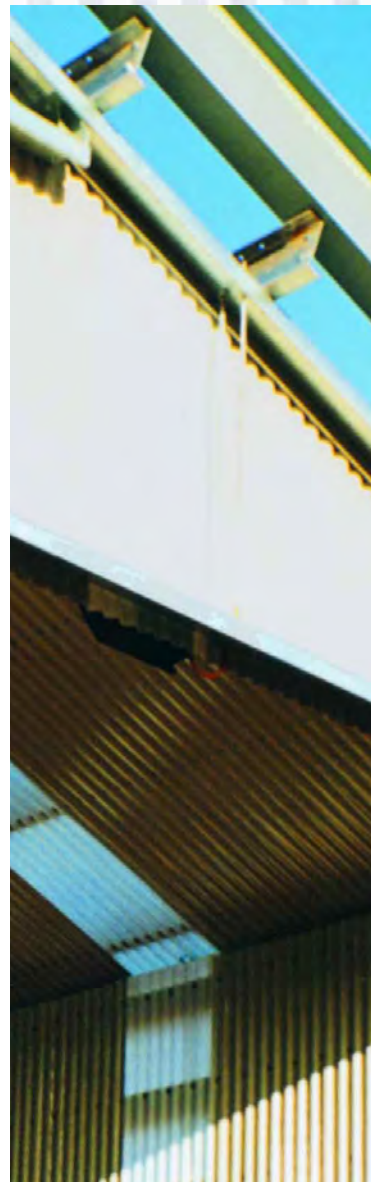
### Standards

Webglas GC and GC+ fully comply with the Building Code of Australia, Class 2 to 9 Buildings, including Part BI which takes into account Australian and New Zealand Standards ASI 170.2:1989, AS/NZS 4256.3:1994, AS/NZS 1562.3:1996, AS4040.1:1992.

### Fire Retardant Properties

Webglas GC and GC+ fully comply with Building code specification C1.10 in particular ASI530.3 1989.

Ammonium Sulphate Storage Building. Murrin Murrin Nickel Mine, W.A.







Pivot PFC Warehouse, Brookstead, Qld.



Pivot PFC Warehouse, Keith, S.A.

### Light/Shade factors

	Light transmission	Shading co-efficient
Ice Clear	60%	0.69
Opal	56%	0.46
Opaque	0%	0.12

### Curved Roof Radius

3660 g/m<sup>2</sup> Corrugated and 5 Rib.

Minimum Radius: 7.5 metres

### Fixings

In corrosive environments we recommend that:

1. All fixings be Stainless Steel.
2. All fixings be Cyclonic Assemblies.

### Flashings and Cappings

We recommend that all be Stainless Steel.

### Physical Properties

Tensile strength	111 MPa	<small>Minimum requirement 50 MPa</small>
Impact strength	10 Joules	
Shear strength	90 MPa	
Modulus of elasticity	5.3 GPa	
Compressive strength	151 Mpa	
Flexural strength	181 MPa	
Specific Gravity	1.6	
Water absorbtion	0.2% in 24 hours/26 <sup>0</sup>	

### Product Description

#### 'Webglas GC'.

Polyester resin base sheet with Isophthalic NPG Gel Coated surface. Continuous woven mat reinforcement.

#### 'Webglas GC+'.

Vinylester resin base sheet with Isophthalic NPG Gel Coated surface. Continuous woven mat reinforcement.

All resins are UV stabilised and acrylic modified to provide excellent weather resistance. If cleaned regularly the sheeting retains its original bright appearance over many years.

Both products withstand environments that corrode or destroy metal and many plastics in a short period of time. Webglas GC+ provides additional protection where there are high concentrations of alkalines or acids. See the 'Chemical Resistance' table for details.

### Technical Support

Projects involving corrosive environments often require supportive evidence regarding product suitability or manufacturers recommendations regarding the use of a particular material. Ampelite can provide extensive technical support even to the extent of product development if necessary. Contact your local Ampelite Office if your require this service.

## Chemical Resistance

### Chemical Group

Webglas GC Webglas GC+ Polycarbonate P.V.C.

#### Organics

Acetic Acid 25%	LS	R	LS	NR
Ethanol	R	R	NR	LS
Heptane	R	R	R	LS
Kerosene	R	R	R	LS
Turpentine	R	R	LS	LS
Urea	R	R	LS	LS

#### Acids

Hydrochloric Acid Conc.	LS	R	NR	LS
Hydrochloric Acid 10%	R	R	R	R
Hydrofluoric Acid 40%	NR	R	NR	LS
Nitric Acid	R	R	R	LS
OLEic Acid Concentrate	R	R	R	NR
Phosphoric Acid Conc.	LS	R	NR	R
Phosphoric Acid 30%	LS	R	NR	R
Sulphuric Acid 30%	LS	R	R	R
Sulfurous Acid	NR	R	NR	LS
Sulphuric Acid 3%	R	R	LS	LS

#### Alkalines

Amonium Hydroxide 10%	LS	R	NR	R
Amonium Sulphate	LS	R	LS	R
Sodium Hypochlorite (Chlorine)	LS	R	R	NR
Sodium Hydroxide 10% (Caustic)	LS	R	NR	R
Sodium Hydroxide 25% (Caustic)	LS	R	NR	R

#### Salts

Ammonium Carbonate	R	R	NR	NR
Copper Chloride	R	R	R	R
Nickel Chloride	R	R	R	R
Pottasium Carbonate	R	R	R	LS
Sodium Carbonate	R	R	R	LS
Zinc Sulphate	R	R	R	R

**KEY:** R = Recommended LS = Limited Service NR = Not Recommended  
Recommendations are based on total immersion at 40°C and therefore may be conservative.

## Applications

Fertilizer and Agricultural Chemical Plants  
Corrosive Chemical processing  
Petrochemical environments  
Wastewater Treatment  
Marine environments  
Mining Industry  
Paper and pulp manufacturing  
Salt extraction and desalination plants.  
Power Stations  
Skylighting where safety mesh is not desirable.

## Specification

"The sheeting shall be Ampelite <sup>\*</sup>Webglas GC/ 'Webglas GC+' gel coated fibreglass reinforced polyester as manufactured by Ampelite Fibreglass Pty. Ltd. to comply with AS/NZS4256.3:1994. The weight of the sheet shall be 3660 g/m<sup>2</sup> and be manufactured to conform with the nominated profile and colour. Sheeting shall be installed in accordance with Ampelite fixing instructions and with AS/NZS 1562.3:1996 Design and installation of sheet roof and wall cladding Part 3: Plastic."

<sup>\*</sup>Insert which product required.

## Warranty

The following benefits are in addition to any rights conveyed by Government regulations and the Trade Practices Act.

Ampelite Fibreglass Pty. Ltd. warrant 'Webglas GC' and 'Webglas GC+' glass reinforced polyester sheeting over:

(A) A period of 20 years (pro-rata cover) for the following:

1. The product will not allow water penetration through the actual sheet.

2. The product will not de-laminate or allow protrusion of reinforcing fibres through the surface of the sheet.

(B) a period of 10 years (pro-rata cover) for the following:

1. Remain structurally sound and shatter resistant under normal conditions. This includes fracturing of sheet by hailstones up to 25 mm in diameter accompanied by winds up to 100 km/hr.

2. Excessive yellowing of sheets leading to loss of light transmission exceeding 10% of the original light value when installed below a latitude of 26° South of the equator. Installations above this latitude will be covered by individual warranty based on known climatic conditions.

#### Warranty conditions:

(a) The product must be installed in accordance with AS/NZS 1562.3:1996 Design and installation of sheet roof and wall cladding Part 3, and with the Manufacturer's recommendations and specifications.

(b) The product must not be affected by failure to remove debris, or failure to keep the surface clean or to provide free drainage of water from the product's surfaces.

(c) The sheet shall not be directly exposed to the range of chemicals known to cause deterioration of polyester materials.

(d) Sheet failure or damage due to vandalism, fire or natural disasters, improper storage or installation is not covered.

#### Replacement or refinishing:

From the date of installation and during the applicable warranty period, Ampelite Fibreglass Pty. Ltd. will, upon verification and acceptance of a claim supply a replacement panel, or refinish the defective panel to restore minimum surface integrity.



Quality  
Endorsed  
Company

AS/NZS ISO 9002  
Lic. QEC 4787

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