Webglas GC & Webglas GC + Installation Guide

Important

The following installation procedures are recommended by the product manufacturers – Ampelite Australia Pty Ltd.

These recommendations closely follow the Australian Standard: Design and installation of Sheet Roof and Wall Cladding, Part 3: Plastic. AS 1562.3-2006

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INSPECTION OF PURLINS

Where wire safety mesh is incorporated under Webglas GC roof sheeting and where the safety mesh passes over the supporting purlin directly under the plastic sheeting, a protective purlin strip (PPS) must be provided between the Webglas GC sheeting and the safety mesh. The protective strip of material must be the full width of the face of the supporting member and extend at least 25mm past both edges of the Webglas GC roof sheeting. Ampelite provides a 65mm wide x 1.2mm thick Protective Purlin Strip which when viewed from below, is not visible.

Note: Webglas GC does not require safety mesh, as it is fully trafficable. There are occasions where safety mesh is in place and so the above becomes relevant.

SIDE LAPS *(Skylight applications only)*

In general, the standard metal roof sheets are laid with spacing left available for the skylights. Each individual fibreglass-building sheet is manufactured to overlap and be supported by adjacent roof or wall cladding.

FASTENING PROCEDURE

Wherever possible commence laying the sheet working towards the highest prevailing wind and from the eaves toward the ridge.

In roofing applications, fixings shall be fitted through the crest of any profile. Due to the larger expansion and contraction rates of Webglas GC, oversized fixing holes of up to 12mm diameter must be predrilled.

Pre-drilling or stack drilling of holes in sheets is not permitted.

Contractors must ensure that the fixings are located in the centre of the oversize hole or the benefit of the larger hole is lost. To ensure accuracy Ampelite recommends the following:
Install screws into fibreglass in the same manner as metal. When completed, remove fixings from fibreglass. Using the existing screw hole as a guide, re-drill over sizing the hole. Reinstall the fixing screw noting that it is now centrally located in the hole.

A 36mm diameter Stainless Steel Cap and EPDM Washer are standard fixing accessories to any screws and must be used in the installation of the Webglas GC. These caps are large enough to cover the oversized hole and also help spread pressure loads at all fixing points. It is important not to over tighten the screw putting undue pressure onto the Webglas GC Sheet. The Stainless Steel Caps are formed to snugly fit all Webglas GC profiles. Care must be taken so that the profiles are not distorted or spread during fixing, and centre lines of all sheet laps must be maintained at the recommended cover width.

At the overlapping joint between sheeting and adjacent sheeting additional side-lap fasteners are required. Ampelite recommends its “Stitching Fastener” which has been specifically designed to cater for Webglas GC Sheeting. The roof sheets should be pre drilled and then stitched resulting in a firm side lap. When installing the fasteners, place one foot on the overlapping ribs to ensure they are firmly together. The stitching fasteners are placed either in the centre of the rib crest or on the side of the overlap and at equal spacing between purlins. Side lap stitching is to be carried out at each side lap before tightening of the main fasteners.

For cyclonic or high wind load areas, further advice should be sought regarding possible additional fastening requirements.

END LAPS

At all roof end laps (including those with dissimilar materials), a minimum of 300mm overlap shall be provided and such lap shall be supported with a purlin. All sheets, when fastened, shall have full bearing on purlins and their ends shall extend not less than 150mm beyond the point of fastening. At all end laps, two lines of compressive foam strip or of flexible sealant shall be placed across the full width of the lap approximately 150mm apart and with one line 25mm from the end of the top Webglas GC sheet.

For all cladding applications, laps shall be a minimum of 100mm overlap and be over a girt. A single line of compressive foam or flexible sealant shall be placed 15mm from the bottom edge of the lap.

Ampelite recommends the use of foam tapes rather than silicone. Silicone sealants tend to bond the two end lapping sheets together preventing individual sheet movement. Furthermore, gaps in the pans of dissimilar material can occur. The foam tapes fill up these spaces much more effectively than silicone. In severely corrosive environments, choice of sealing tapes needs to be made in consultation with Ampelite.

SEALING AT FLASHINGS ON ROOFS

Webglas GC roof sheeting is not easily reshaped after manufacture and will require special weather seals to be provided at all flashing and capping points. Typically a foam closure strip matching the profile of the Webglas GC sheeting should be provided to seal the corrugations or pans of the profile under each flashing. The foam closure should be bonded to the pans or valleys of the Webglas GC sheeting with a flexible waterproof sealant and should be continuous over the entire width of the sheet. Ideally it should be fitted at least 100mm behind the turn down of the flashing.

All flashings and capping shall be set out and fixed to allow for thermal movement of themselves and the Webglas GC.

GENERAL

Should cutting of the Webglas GC onsite be necessary the use of an angle grinder with a small tooth blade or disc is recommended. Care should be taken to achieve a cut with minimal damage to the sheet.

SAFETY

It is most important for safety reasons that during sheet laying walking on the roof is reduced to an absolute minimum and along the purlins only. Soft soled shoes should be worn. Walk in the centre pan of the sheet and along supports when walking across the sheet. Temporary plank walkways should be provided where continuous heavy traffic occurs on the sheeting.

CONCLUSION

Should all of the above be followed, then Ampelite will be happy to warrant their Webglas GC product for many years to come. Taking care with the above installation methods can eliminate problems such as leakage or buckling of the Webglas GC sheets.

Further information can be obtained from an Ampelite office in your area.