

Specification

The Translucent Sheeting shall be Ampelite SL IR4 Fire Retardant Industrial Fiberglass Sheeting with the Coolite IR4 additive in the top Gel Coat surface as supplied by Ampelite (NZ) Limited. The thickness of the sheet shall be as required to meet the purlin spans in the chosen commercial roofing profile.

Warranty

SL IR4 Fire Retardant is coated with a 100 micron Silmar **SIL 12BE-996** gel coat layer on the outer surface of the sheet forming a barrier which is resistant to the detrimental effects of UV light, minimizing long term yellowing and maintaining mechanical properties. SL IR4 Fire Retardant Industrial Fiberglass sheeting carries a 25 year warranty in respect of light transmission and water transmission.

Installation

SL IR4 Fire Retardant 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, the requirements of the NZ building code and the NZ Metal Roofing Manufacturers Association Code of Practice.

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Please note these additional important requirements:

SL IR4 Fire Retardant shall be installed using the fastening length applicable to the chosen profile. The sheeting must be installed by pre-drilling 12mm oversize holes to allow for expansion and contraction. The fixing screws shall be located in the centre of the rib must not be over tightened to an extent that the sheet buckles, allowing water penetration at the seal or sheet overlap. Fixing should be made at every second crest at both ends of the sheet, and every third crest at intermediate purlin. Wonderglas sheeting shall only be installed using Metal profiled washer along with an EPDM washer which fits the profile correctly ensures the fixings remain watertight.

To ensure accuracy Ampelite recommends the following:

- 1- Install screws into the SL IR4 Fire Retardant sheeting in the same manner as metal.
- 2- When completed, remove fixings from the Wonderglas sheet.
- 3- Using the existing screw hole as a guide, re drill over sizing the hole.
- 4- Re install the fixing screw. (Note how the screw is centrally located in the hole.)

5- Do not over tighten the screw putting undue pressure on the SL Fire Retardant sheet.

Purlin Protection

SL IR4 Fire Retardant is not a trafficable fiberglass sheet and in most applications Safety mesh will be needed. However if safety mesh must be incorporated under the SL IR4 Fire Retardant sheeting a purlin protection strip must be provided where the SL IR4 Fire Retardant roof sheeting passes over safety mesh sitting on the supporting purlin, a Ampelite purlin protection strip must be placed directly under the SL IR4 Fire Retardant sheeting. This profile strip will protect the SL IR4 Fire Retardant from damage when fastened.

Side laps

If SL IR4 Fire Retardant is to be used as skylights, the metal roof sheets need be laid with the correct spacing's left for the skylights. Where SL IR4 Fire Retardant is to be used as a complete roof, then the sheeting should be laid in the same fashion as metal roofing.

Side Stitching

It is recommended to install additional side stitching fasteners. These fasteners will bond the SL IR4 Fire Retardant sheeting and the adjacent sheeting together with appropriate allowances for the differential expansion rates of the materials. Ampelite recommends either Ampelite Lap Stitch or a T17 coarse treaded self-drilling screw with the same metal profiled washer and seal being use on the primary fasteners these instances.

The Lap Stitch is a compressed fastener designed to secure the side laps of fibreglass sheets (fibreglass onto fibreglass). It consists of a neoprene sleeve with an embedded nut, plus a stainless screw with matching washer. When drawn up properly, it offers equal bearing on both sides of the secured sheets and draws them together without cracking or crazing.

When fibreglass sheeting is lapped onto metal sheeting a T17 coarse treaded self-drilling screw with the same metal profiled washer and seal being use on the primary fasteners, fastened into the top of the rib, provides a firm seal in the lapping joint. The table below indicates the recommended spacing for side stitching fasteners.

Profile Rib Height	Max Spacing of Fasteners
30mm and more	600mm

End Laps

All end laps must have a minimum of 300mm overlap. Ampelite recommend the use of either a 25mm x 5mm closed cell foam tape or a bead of sealant at the top and bottom of the fastening point. End lapping should only be applied to roofs with a minimum pitch of 3 degrees.

Span Information

Please contact your local Ampelite branch with the wind load in Kpa and we will provide you with the span data for your chosen profile.

Sealing at flashings

The use of end stops is recommended to prevent wind driven water from running passed the flashing and into the building. Typically a metal angle is folded to the height of the profile rib and fastened to the end of the sheet with rivets. Neutral cure sealant is then applied where the Fibreglass sheet meets the metal angle.

Wall Cladding

Pan fixing is required at each girt, and use of Ampelite grey dome 22 mm weather seals ensures a weather tight seal. Over tightening or flattening the weather seal must be avoided. Fixing shall occur in every pan at both ends of the sheeting, and every other pan at intermediate grits.

End Closure Strip

Foam filler strip is available to suit most profiles. This strip should be installed at the ends of the sheets to exclude dirt, birds and vermin.

Cutting

Should cutting of the Wonderglas sheet onsite be necessary the use of a circular saw with a small tooth blade suitable for plastic sheeting is recommended. Care should be taken to achieve a cut with minimal damage to the sheet.

Storage

The sheeting should always be stored in a dry and fire safe area. Do not store heavy materials on top of sheets as they may fracture.

Labelling

Every translucent sheet shall be labelled with the manufactures license number, Manufacturer's name, sheet type, date of manufacture, batch number an weight.

Standards

As a minimum the manufacturing process shall comply with AN/NZS 4256 and where this standard conflicts with this specification this specification shall take precedence.

Quality Assurance

The manufacture shall be AS NZS ISO 2000 accredited and shall demonstrate that the correct manufacturing process has been followed and that the translucent sheet is within the specified tolerances.