SOLASAFE SS40

INDUSTRIAL POLYCARBONATE SHEETING

Ampelite, New Zealand's leading supplier of plastic roof sheeting for both residential and Industrial applications introduces SOLASFE SS40 Industrial polycarbonate sheeting. SS40 can be used to form complete roof areas or can be incorporated into profiled metal roofing and cladding systems.

SURFACE PROTECTION

SOLASAFE is protected by a co-extruded layer on the outer surface of the sheet which forms a barrier resistant to the detrimental effects of UV, minimizing long term yellowing and maintaining mechanical properties. SOLASAFE SS40 Industrial Polycarbonate sheeting carries a 15 year warranty in respect of light transmission and sheet perforation.

FIRE PROTECTION

SS40 has achieved an Internal Surface Finish Group number of 1-S according to performance determined under the conditions described in ISO 9705:1993 required by NZBC clause C3.4(A). Performance is achieved through MBIE Guidance on European Classification.

SUPERIOR FEATURES OF SOLASAFE SS40

- Strong and Lightweight.
- Excellent long term light transmission.
- Excellent fire performance.
- Low softening and melting temperature.
- Built in long term UV protection.

APPLICATIONS

- Commercial and industrial buildings where skylights with low softening and melting temperatures are required.
- Glasshouses where high levels of long term light transmission and durability is required.
- Schools and public where protection from UV is required.
- Sporting complexes.

AMPELITE

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ISO 9001

SOLASAFE SS40 INDUSTRIAL POLYCARBONATE SHEETING

SOLASAFE SS40 is a high performance industrial polycarbonate roof sheeting, which admits natural light into commercial, industrial and other buildings. SOLASAFE SS40 can be used to form complete roof areas or can be incorporated into profiled metal roofing and cladding systems, ranging from simple single skin to double skinned applications. SOLASAFE SS40 is very durable material, many times tougher than glass, with excellent light transmission, fire performance and has a very low softening temperature and melting point to that of industrial fiberglass sheeting.

Suitable for the following profiles

SS40 has its own unique profile with a cover of 1000mm. SS40 will side lap onto most of the commercial roofing profiles with a rib hight of 40mm or more commonly available in New Zealand.
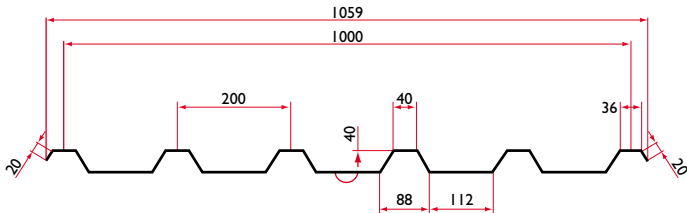
Sheeting Length and Thickness

SS40 Industrial Polycarbonate sheeting comes in standard lengths of 4.8, 6.0 and 8.1 and a thickness of 1.2mm.

Light and Heat Transmission

Light & Heat Transmission 1.2 MM		
Colour	Light %	Heat %
Clear	89	82.4
Opal	53	35.2

Spanning Capacity

	1.0 KPA		1.5 KPA		2.0 KPA	
SS40	1500	1300	1400	1200	1300	1100

For information regarding recommended spans in high wind and cyclonic regions please contact your local Ampelite office.

Specification

"The Translucent Sheeting shall be SS40 Industrial Polycarbonate Sheeting. The thickness of the sheet shall be *1.2mm. Sheeting shall be installed in accordance with Ampelite fixing instructions, the requirements of the NZ building code and the NZ Metal Roofing Manufactures Association Code of Practice"

Expansion Data

Materials Expansion Comparison. 0° to 40° Temperature Variation. Sheet Length 6 metres	
Fiberglass	
Thermal Expansion	7.2mm
Thermal Co-efficient	3.0×10^{-5} cm/cm°C
Polycarbonate	
Thermal Expansion	16.2mm
Thermal Co-efficient	6.75×10^{-5} cm/cm°C
Steel	
Thermal Expansion	2.9mm
Thermal Co-efficient	1.2×10^{-5} cm/cm°C
Aluminum	
Thermal Expansion	5.8mm
Thermal Co-efficient	2.4×10^{-5} cm/cm°C

Fire Performance

Solasafe SS40 Industrial Polycarbonate exhibits excellent fire performance properties. SOLASAFE SS40 is self extinguishing and produces very little smoke. SOLASAFE SS40 has a very low softening temperature and melting point compared to that of industrial fibreglass sheeting making it ideal for buildings where skylight sheeting may be required to melt out at lower temperatures.

Description	Mean	Standard Error
Ignition Time	N/A min	N/A
Flame Propagation Times	N/A s	N/A
Heat Released Integral	N/A KJ/m^2	N/A
Smoke Release, Log D	-2.2349	0.1056
Optical Density D	0.0067	/M

Regulatory Indicees	Units	Range
Ignitability Index	0	0 - 20
Spread of Flame Index	0	0 - 10
Heat Evolved Index	0	0 - 10
Smoke Developed Index	0-1	0 - 10

Tests where carried out to AS 1530 3.1989: Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.

Temperature Ranges

Vicat softening point	148 °C
Total melt point	250 °C

Installation (Correct Installation Is Important)

SS40 Polycarbonate 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 Manufactures Association Code of Practice.

FOR FULL SAFETY & INSTALLATION DETAILS PLEASE CONTACT YOUR LOCAL AMPELITE OFFICE OR DOWNLOAD A COPY OF OUR INSTALLION GUIDE FROM www.ampelite.co.nz

1. SS40 Polycarbonate sheeting shall be installed using the fastening length applicable to the main cladding and shall be fastened at every rib across the width of the sheet, together with a 32 mm Weatherlok washer or metal profile washer and EDPM seal. This combination gives a secure and weather tight finish. The fixing screws should not be over tightened to an extent that the sheet buckles, allowing water penetration at the seal or sheet overlap.

2. Fixing should be made at every crest at both ends of the sheet and at intermediate purlins.

3. Where SS40 Polycarbonate sheeting is in CONTACT WITH SAFETY MESH an Ampelite protective profiled foam strip should be installed over the safety mesh, to avoid fracturing of the underside of the sheet.

4. Where END LAPPING is required a minimum of 300 mm overlap is essential. Polycarbonate compatible sealents must be used, Ampelite can supply these sealents when requested. We recommend the use of bead of sealent at the top and bottom of the fastening point. End lapping should only be applied to roofs with a minimum pitch of 5°.

5. IMPORTANT: SS40 Polycarbonate Must be installed by pre-drilling oversize holes of 10mm diameter to allow for expansion and contraction. Do not over tighten screws.

Wall Cladding
Pan fixing is required at each girt. Fixing shall occur in every pan at both ends of the sheeting, and every other pan at intermediate grits.

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.

Recycling and disposal
Polycarbonate sheeting is fully recyclable and can also be disposed of in a land fill.

Non-trafficable
SS40 sheeting is a non-trafficable material. Sheets should be handled with care to avoid damage to the surface. Guarantees will not apply to sheeting that has been damaged in handling, or mechanical damage as a result of foot traffic.

AMPELITE
makes light work!