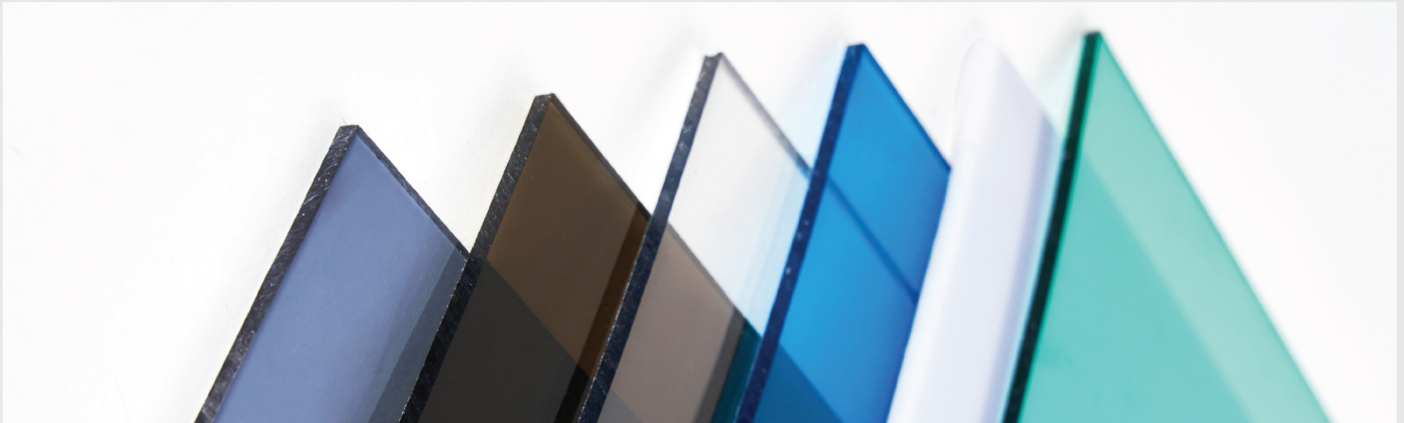


ACEWELL

Solid Polycarbonate



Variations

Thickness (mm)	Dimensions (ft x ft)	Colors	Type
1.5, 2.0, 3.0, 4.5	4 x 100	Bronze, Clear, Blue, Green, White, Gray	Roll
3.0	4 x 8, 4 x 16	Bronze, Clear	Panel
4.5	4 x 8, 4 x 16	Bronze, Clear, Blue, Green, White, Gray	
6.0	4 x 8, 4 x 10, 4 x 12, 4 x 16, 4 x 20, 7 x 16, 7 x 19		
8.0	4 x 8, 4 x 16		
10.0	4 x 8, 4 x 16		

Lightweight
Only half the density of glass, which could save delivery and installation cost.

Impact Strength
Greater impact strength compared to annealed glass.

High Clarity
Up to 89.3% luminous transmission.

Flame Retardancy
Self-extinguishing; does not amplify flames or give off toxic gases and has a B1 GB 8624-2012 rating.

Thermal Stability
Minimal property changes within the temperature range of -40°C to 120°C.

Weatherability
Co-extruded UV layer enables long-term UV radiation protection.

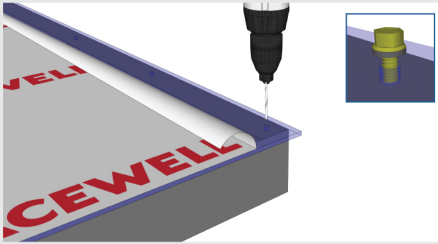
Sound Insulation
Superior acoustic insulation, ideal as sound barriers.

Heat Insulation
Good thermal insulation performance, minimizing heat consumption.

Formability
Ease of fabrication; a huge range of shapes and sizes can be formed.

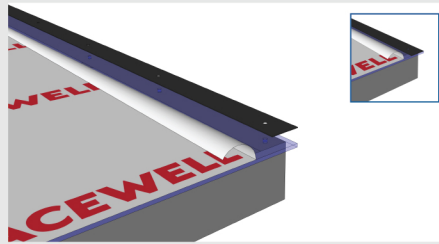
Installation Guide

Solid Polycarbonate Installation using Aluminum Flatbar on Edges



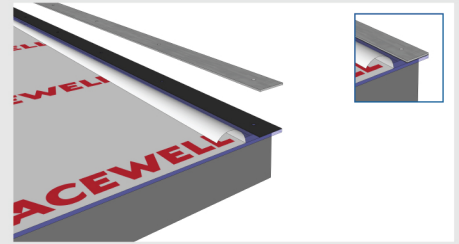
Step 1

Peel the protective cover along the edges and predrill holes 50% larger than its diameter size.



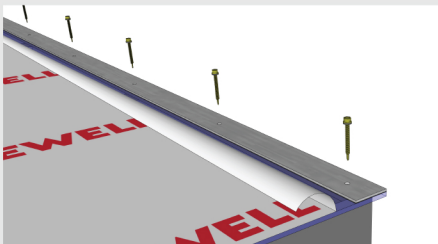
Step 2

Stick the rubber tape along the edge.



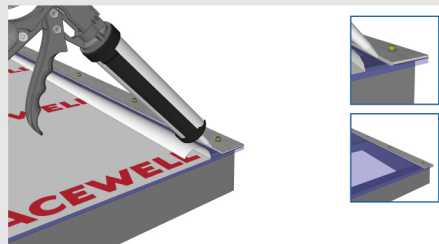
Step 3

Place the aluminium flat bar on top of the rubber tape.



Step 4

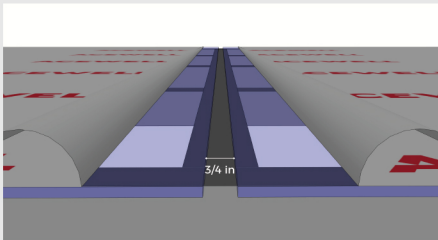
Secure the aluminium flat bar onto the frame using tekscrews. Be careful not to overtighten.



Step 5

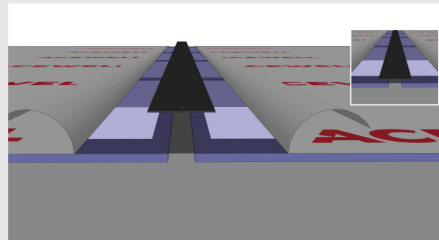
Apply sealant along the sides of the flatbar and completely remove the protective cover.

Solid Polycarbonate Installation using Aluminum Flatbar in between Panels



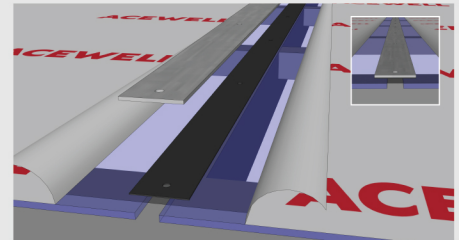
Step 6

Peel a portion of the protective film along the panel edges. Leave a space gap of up to $\frac{3}{4}$ inch between sheets for thermal expansion.



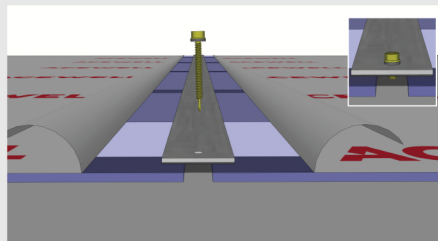
Step 7

Stick the rubber tape evenly between the panels.



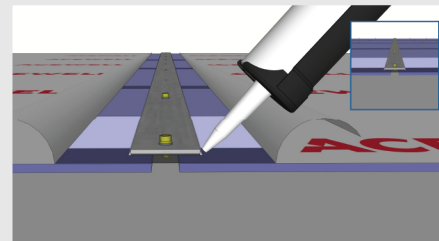
Step 8

Place the aluminium flat bar on top of the rubber tape.



Step 9

Secure the aluminium flat bar onto the frame using tekscrews. To prevent damage due to thermal expansion, make sure that the tekscrew is not touching the polycarbonate.



Step 10

Apply sealant along the sides of the flatbar and remove the rest of the protective cover.

Technical Data

Test Item	Test Method	Test Condition	Result
Flexural Strength	ASTM D790-17 Procedure A	Specimen: 127mmx12.92mmx2.91 mm; Testing speed: 1.2mm/min; Span:46 mm	88.7MPa
Flexural Modulus			2171MPa
Charpy notched Impact strength	ASTM D6110-18	Specimen width: 2.91mm (Notch preparation: machining); Capacity of pendulum: 10.80; Impact speed: 3.46m/s; Span: 101.6mm	82.2 kJ/m (P partial break)
Heat deflection temperature (under load)	ASTM D648-18 Method B	Specimen: 127mmx2.92mmx12.98mm; Heat-transfer media: Silicone oil; Rate of temperature: 120°C/h; Load: 0.455MPa; Span: 100mm	141.2 °C
Total luminous transmittance	ASTM D1003-13 Procedure A	Specimen thickness: 2.99 mm Light source: C	89.30%
Haze			0.7%
Rockwell Hardness	ASTM D785-08(2015) Procedure A	Specimen thickness: 8.92 mm (3 layers piled up)	123R
Impact resistance	ASTM D5420-16	Specimen thickness: 2.90mm; Geometry: GE; Strike weight: 3.6kg	Mean failure energy: >35.3 J
Elongation at break	ASTM D638-14	Specimen: Type I; Specimen thickness: 2.92 mm; Testing speed: 50 mm/min; Gauge length: 50 mm; Distance between grips: 115 mm	89%
Tensile Strength			64.9 MPa
Density	ASTM D792-12 Method B	Absolute Alcohol 23 ± 0.5 °C	1.19g/cm3
Thermal Conductivity	ISO 8301-1991	Mean temperature: 29.97 °C Temperature difference: 17.29 °C	Thermal Conductivity: 0.132 W/(m·K)
Tensile modulus	ASTM D638-14	Specimen: Type 1; Specimen thickness: 2.91 mm; Testing speed: 5 mm/min; Gauge length: 50 mm; Distance between grips: 115 mm	2590 MPa
Tensile Strength			64.9 MPa
Elongation at break			89%
Coefficient of linear thermal	ASTM E831-19	Specimen - X direction: 9.97mmx5.42mmx2.93mm Specimen - Y direction: 9.96mmx5.44mmx2.91 mm Rate of temperature: 5°C/min; Load: 50mN; Flow rate(N2): 50ml/min; Test temperature: 20°C-80°C; Test direction: X direction & Y direction	X direction: 76.6 um/(m·°C) Y direction: 76.4 um/(m·°C)

Disclaimer Notice: This information is given in good faith and to the best of our knowledge, but without any warranty. Users of our materials should determine the suitability for a specific application. It is always advisable to do preliminary testing.