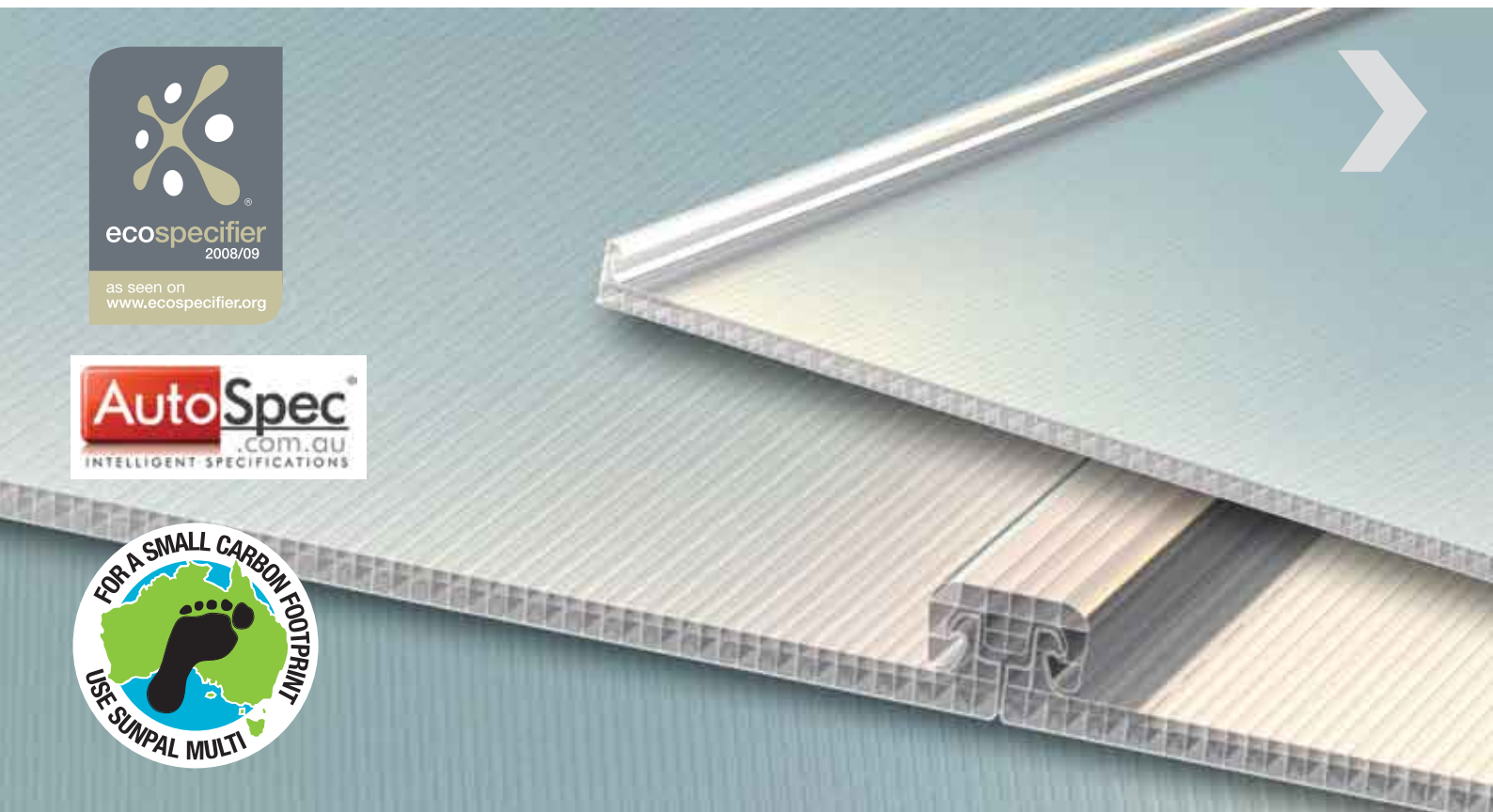




## Burnside Plastics

Excellence without Compromise

introduce the next generation of standing seam products



## A Lifetime of Experience in Polycarbonate Roofing and Glazing

Burnside Plastics begin distributing extruded polycarbonate products in Australia

Burnside Plastics Pioneer Standing Seam Polycarbonate

Burnside Plastics Introduce Solar Control "Cool light" Technology to Australia

Burnside Plastics Introduce the Next Generation of Standing Seam Products



1984

1995

1998

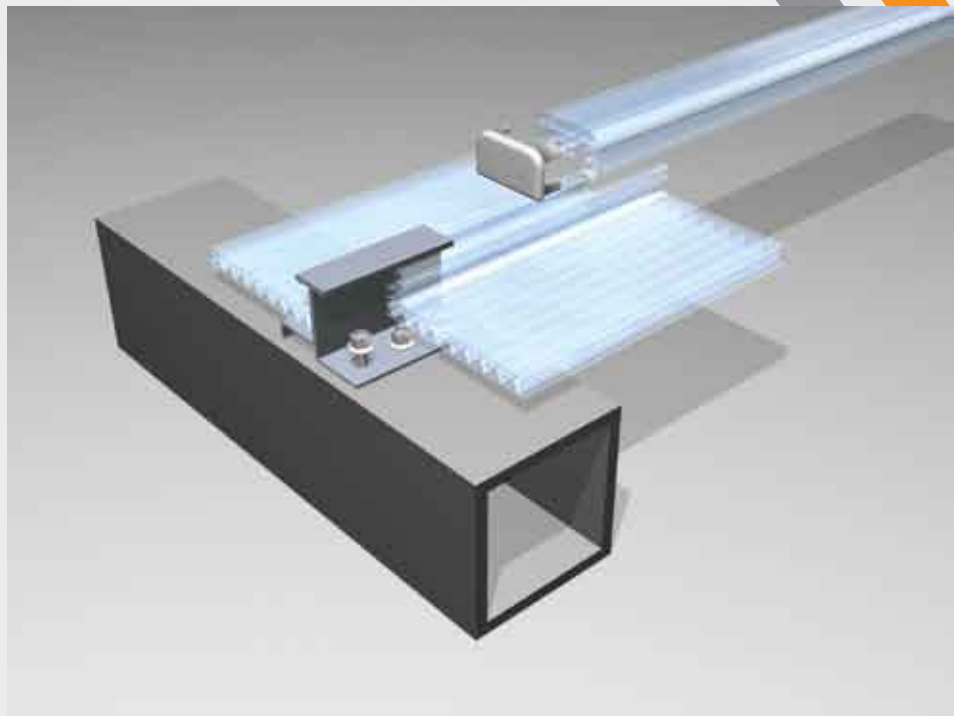
2008



# The Next Generation...

in environmentally friendly roofing and walling systems has arrived.

Sunpal multi is the result of over 20 years experience with standing seam roofing and glazing systems.




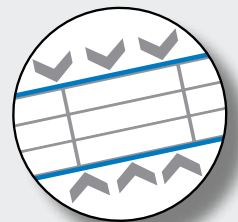
Allowing you to stretch your imagination and giving you -

## Freedom In Design

The advantages that  **SUNPAL** multi provide are *endless...*

- **Australian** designed and **owned** and exported to the world
- SolarSmart™ technology **reducing cooling cost**
- Delivers **energy efficient** lighting to any application
- Excellent **thermal properties** creating a greener Australia
- New design creating a **lower profile**
- Extreme **impact resistance**
- Unique fixing system utilising **hex head** screws for a quicker installation
- **25 years** watertight warranty
- 99.9% UV protection on **both sides** as standard
- Extensive **colour** range
- New **patented** T Lock fastener **eliminates** sheets from “slipping”








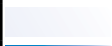



 UV coating  
both sides!





















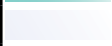



 **SUNPAL** multi *the only limit is your imagination!*








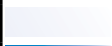

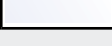
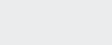


# Sheets, Colours & Solar Transmissions

SUNPAL 8/600	Colour	LT	SHGC	SC	COMFORT LEVEL		
		Solar Ice	20%	0.28			0.32
		Solar Control Grey	20%	0.30			0.34
		White Opal	26%	0.37			0.43
		Bronze	25%	0.40			0.46
		Solar Grey	30%	0.45			0.52
		Red	20%	0.52			0.60
		Green	50%	0.56			0.64
		White Ice	50%	0.56			0.64
		Blue	50%	0.60			0.69
	Clear	65%	0.63	0.72			
		<b>Sunpal Multi 8mm</b>					
		Width	600mm				
		Length	11980 mm max				
		Height including standing seam	23.5 mm				
		Height with PC joiner	33.0 mm				
		Height with aluminium joiner	63.0mm				
		Weight	1.2 kg/m <sup>2</sup>				
		Min Cold Bending Radius	2.0 m				

SUNPAL 10/600	Colour	LT	SHGC	SC	COMFORT LEVEL		
		Solar Ice	20%	0.28			0.32
		Solar Control Grey	20%	0.30			0.34
		White Opal	26%	0.37			0.43
		Bronze	25%	0.40			0.46
		Solar Grey	30%	0.45			0.52
		Red	20%	0.52			0.60
		Green	50%	0.56			0.64
		White Ice	50%	0.56			0.64
		Blue	50%	0.60			0.69
	Clear	65%	0.63	0.72			
		<b>Sunpal Multi 10mm</b>					
		Width	600mm				
		Length	11980 mm max				
		Height including standing seam	25.5 mm				
		Height including PC joiner	35.0 mm				
		Height with aluminium joiner	65.0mm				
		Weight	1.6 kg/m <sup>2</sup>				
		Min Cold Bending Radius	2.4 m				

SUNPAL 18/1000	Colour	LT	SHGC	SC	COMFORT LEVEL		
		Solar Ice	15%	0.23			0.26
		Solar Control Grey	15%	0.25			0.29
		White Opal	20%	0.30			0.34
		Bronze	20%	0.35			0.39
		Solar Grey	30%	0.44			0.51
		Red	15%	0.44			0.50
		Green	38%	0.46			0.53
		White Ice	40%	0.48			0.55
		Blue	36%	0.50			0.57
	Clear	50%	0.54	0.62			
		<b>Sunpal Multi 18mm</b>					
		Width	1000mm				
		Length	11980 mm max				
		Height including standing seam	35.5 mm				
		Height including PC joiner	41.0 mm				
		Height with aluminium joiner	73.0mm				
		Weight	3.1 kg/m <sup>2</sup>				
		Min Cold Bending Radius	3.0 m				

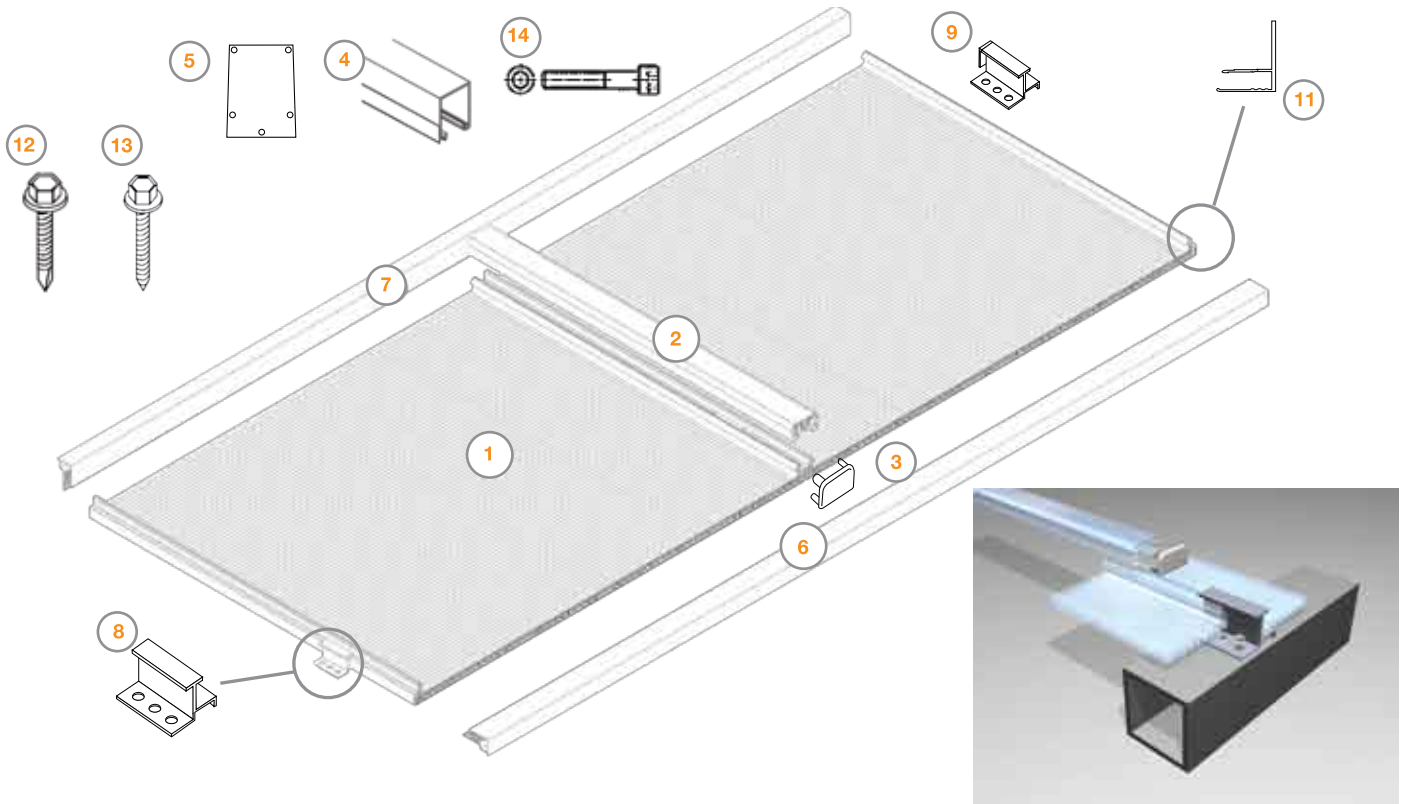
SUNPAL 20/1000	Colour	LT	SHGC	SC	COMFORT LEVEL		
		Solar Ice	15%	0.23			0.26
		Solar Control Grey	15%	0.25			0.29
		White Opal	20%	0.30			0.34
		Bronze	20%	0.35			0.39
		Solar Grey	30%	0.44			0.51
		Red	15%	0.44			0.50
		Green	38%	0.46			0.53
		White Ice	40%	0.48			0.55
		Blue	36%	0.50			0.57
	Clear	50%	0.54	0.62			
		<b>Sunpal Multi 20mm</b>					
		Width	1000mm				
		Length	11980mm max				
		Height including standing seam	35.5 mm				
		Height including PC joiner	43.0 mm				
		Height with aluminium joiner	75.0 mm				
		Weight	3.2 kg/m <sup>2</sup>				
		Min Cold Bending Radius	3.0 m				

**LT (Light Transmissions)** = The percentage of incident visible light that passes through an object. **SHGC (Solar Heat Gain Coefficient)** = The percentage of incident solar radiation transmitted by an object, which includes the direct solar transmission and the part of the solar absorption radiated inward. **SC (Shading Coefficient)** = The amount of the sun's heat transmitted through a given window compared with that of a standard 3.0 mm thick pane of glass under the same conditions.



*the only limit is your imagination!*

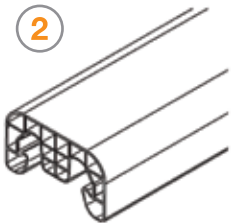
# Assembly Details & Accessories



Sunpal sheets available in following lengths (mm): Tolerance after cutting of  $\pm 0.3\%$   
 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000, 11980

## Accessories

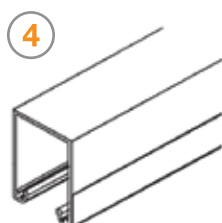
**1 Sunpal multi Sheets**  
 (see opposite page for details)



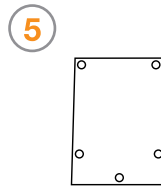
**Polycarbonate Joiner**



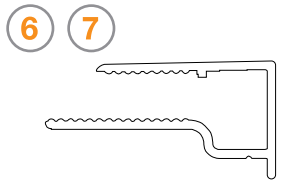
**Polycarbonate Joiner End Cap**



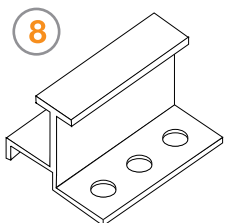
**Aluminium Joiner**



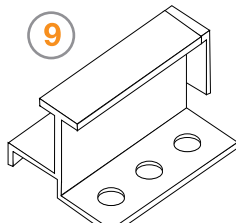
**Aluminium Joiner End Cap**



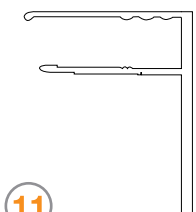
**Aluminium Sheet End Cap**



**T Fastener**



**T Lock Fastener**



**Aluminium F Section**

**Hex Head Metal**



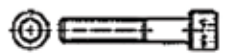
**12**

**Hex Head Timber**



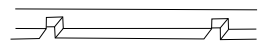
**13**

**M6 Bolt**



**14**

**Compressible Foam**



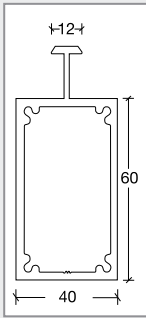
**10**

# Spanbar Profiles



The Spanbar system utilises long spanning aluminium T rafters that free span up to 9.0m\*. Incorporating the clean look of Sunpal, this fully engineered and certified system allows you to create large spans without the need for unsightly purlins or cross members. The Spanbar system is lightweight but extremely strong, suiting commercial walkways and atriums, through to backyard entertaining areas.

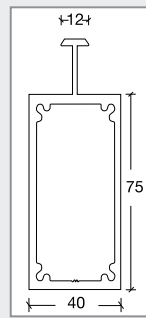
## Freedom In Design!!



### Spanbar - 60mm

60mm x 40mm  
Suits 8mm Sunpal  
Minimum bending radius - 2000mm  
Cantilever skillion - 800mm (based on 1.0 kPa load)

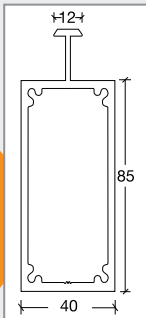
Support Guide	
Style	Permissible Span
Skillion	4000mm
Curved	5000mm



### Spanbar - 75mm

75mm x 40mm  
Suits 8mm Sunpal  
Minimum bending radius - 2500mm  
Cantilever skillion design - 1200mm

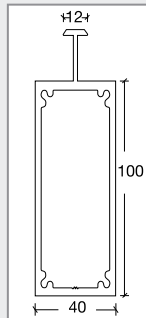
Support Guide	
Style	Permissible Span
Skillion	5000mm
Curved	6000mm



### Spanbar - 85mm

85mm x 40mm  
Suits 10mm Sunpal  
Minimum bending radius - 3500mm  
Cantilever Skillion design - 1200mm

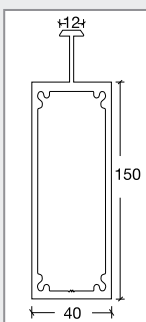
Support Guide	
Style	Permissible Span
Skillion	5500mm
Curved	6000mm



### Spanbar - 100mm

100mm x 40mm  
Suits 18mm Sunpal  
Minimum bending radius - 5000mm  
Cantilever Skillion design - 1300mm

Support Guide	
Style	Permissible Span
Skillion	6000mm
Curved	7000mm



### Spanbar - 150mm

150mm x 40mm  
Suits 18mm Sunpal  
Minimum bending radius - 10 000mm  
Cantilever Skillion design - 1500mm

Support Guide	
Style	Permissible Span
Skillion	8000mm
Curved	9000mm

These spans are calculated on a standard roofing application greater than 5° based on a wind speed of 41 m/s (equivalent to 1.0 kPa). At the above spans there is virtually nil deflection.

For vertical applications please consult Burnside Plastics for recommended support spacing. Our expert team will be able to advise on achievable spans for your project.



# Mechanical Properties



## Typical Physical Properties

Property	Method*	Conditions	Units	Value
Density	D-792		g/cm <sup>3</sup>	1.2
Heat Deflection Temperature (HDT)	D-648	Load: 1.82 MP	°C	130
Service Temperature - Short Term			°C	-50 to +120
Service Temperature - Long Term			°C	-50 to +120
Coefficient of Linear Thermal Expansion	D-696		cm/cm °C	6.5
Tensile Strength At Yield	D-638	10mm/min	MPa	62
Elongation At Break	D-638	10mm/min	%	>80
Impact Falling Dart	ISO 6603/1		J	40-400
Thermal Expansion/Contraction Rate			mm/m	3

\*ASTM method except where noted otherwise

## Thermal Insulation

Type	U-Value [Watts/m <sup>2</sup> .°C]	R-Value [m <sup>2</sup> .°C/Watt]
Sunpal 8mm	2.45	0.41
Sunpal 10mm	2.10	0.47
Sunpal 18/20mm	1.50	0.67



# Span Tables

## Span Table - Purlins & Rafters

Sunpal Profile	Polycarb Joiners		Aluminium Joiners		Rafter Only Centres
	Mid Span (mm)	End Span (mm)	Mid Span (mm)	End Span (mm)	
8mm multi	1000	800	1700	1300	602
10mm multi	1200	900	1850	1450	602
18mm multi	1400	1000	2000	1500	1002
20mm multi	1400	1000	2000	1500	1002



These spans are calculated on a standard roofing application greater than 5°, based on a wind speed of 41 m/s (equivalent to 1.0 kPa). At the above spans there is virtually nil deflection. For vertical applications and curved roofing applications please consult Burnside Plastics for recommended support spacing. Our expert team will be able to advise on achievable spans for your project.

## Overhang/Cantilever

Profile	Joiners	Aluminium Joiners
8mm multi	75mm	150mm
10mm multi	100mm	200mm
18mm multi	150mm	350mm
20mm multi	150mm	350mm

It is recommended to overhang into the gutter by a minimum of 50mm and maximum 75mm. See left for maximum cantilever using either polycarbonate or aluminium joiners.

**SUNPAL<sup>®</sup>multi** the only limit is your imagination!

