



BOILDING ENVELORE SOCIONS

Solar Shading Facade Solutions

# **Solar Shading**

Effective solar shading solutions form a vital aspect of sustainable building design to physically manage heating and cooling thereby enhancing occupant comfort and reducing energy consumption, as well as offering opportunities for architectural aesthetic expression. Thermosash engineers unique solutions to integrate solar shading devices into the facade to effectively meet architectural design intent and maintain a weathertight exterior.

Thermosash has over 50 years experience working within the facade industry in New Zealand as well as abroad. Thermosash has the capability and capacity to engineer a custom solution, manufacture the elements and products and install them on site - providing a totally integrated service which delivers the best value engineering through ECI (early sub-contractor involvement). Our products are tested and proven, and our solutions have included complex engineering features requiring innovation and expertise to deliver.

Our products and elements are prefabricated and unitised which streamlines production, anticipates just-in-time site delivery and enables our highly skilled installation teams to close in buildings rapidly - saving on programme timeframes and mitigating follown trade risk.

#### Extruded and composite fins - project examples



Massey University Innovation Complex - extruded aluminium solar shading integrated into facade.



University of Auckland Engineering 405 - fixed external sunshades integrated into Thermosash PW1000 double glazed curtainwall.



ASB North Wharf, Auckland - vertical solar shade fins suspended off the curtainwall.



Zespri, Tauranga - aluminium vertical fins and horizontal shading elements.



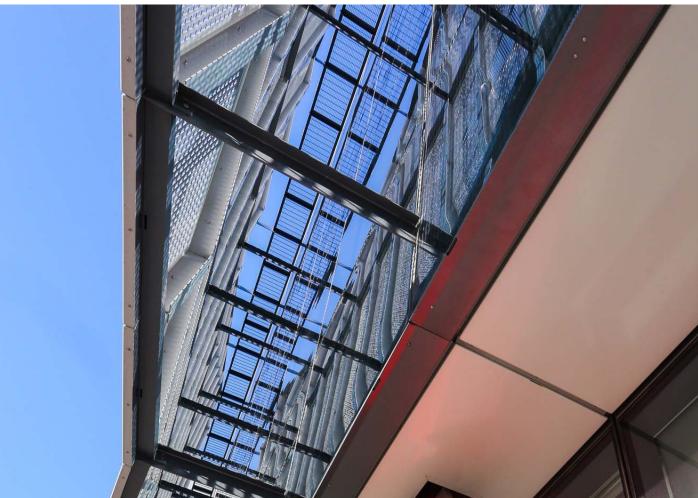
University of Auckland, B201 - Vertical solar shade feature fins integrated into PW1000 unitised curtainwall.



Ashburton Civic Centre & Library, Te Whare Whaktere - PW1000 unitised curtainwall integrated with vertical solar shading fins with actuators

## Perforated solar shade screens - project example





 $\label{thm:continuous} \mbox{University of Canterbury, RRSIC building - perforated folded aluminium solar shading screens}$ 

### **Extruded and composite louvres - project examples**



Showplace, Christchurch - PW400 Unitised Curtainwall with integrated horizontal solar shading louvres



Fonterra Building, Fanshawe Street, Auckland - vertical and horizontal solar shading louvres



Wellington Regional Children's Hospital - horizontal and vertical solar shading integrated into PW1000 unitised curtainwall.



AUT M1, Mana Hauora Building - solar shading cantilevered off the PW1000 unitised curtainwall with a maintenance walkway incorporated behind the screens.



 $\label{thm:merg} \mbox{Meridian Energy Site 7, Wellington - automatic window and louvre actuators,} \\ \mbox{providing passive heating and cooling of the building.}$ 



University of Auckland, Thomas Building - integrated sunscreen louvre sliders.



Oxford Terrace Apartments, Christchurch - operable vertical elliptical louvres providing shading and privacy.

## Solar shading glass fins and louvres - project examples



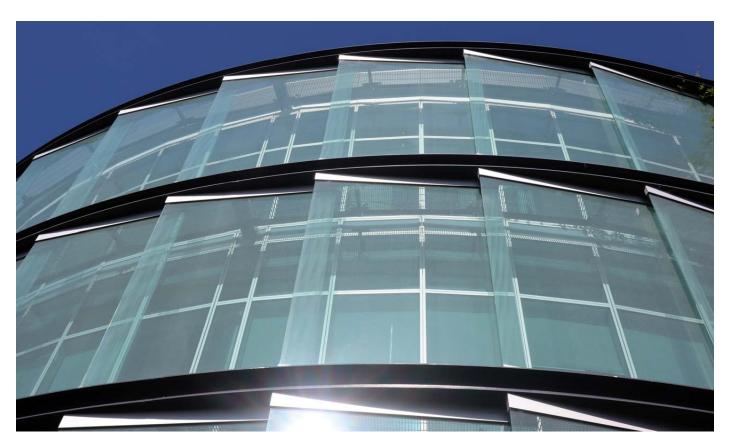
 $83\ \mbox{Victoria}$  street, Christchurch - frit glass louvres levels 1-5 of the 6 storey building.



Lambton Square Plaza, Wellington - frit glass louvres with actuators



University of Auckland B405 - coloured glass vertical solar shading fins.

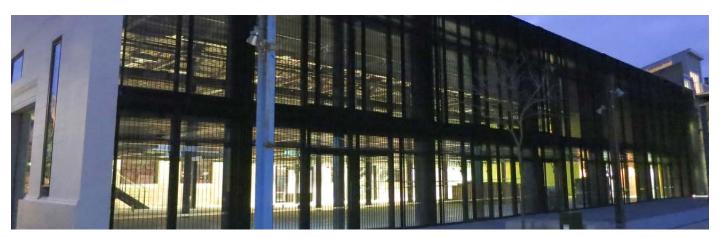


University of Auckland, Thomas Building - frit glass structural external twin skin louvres.

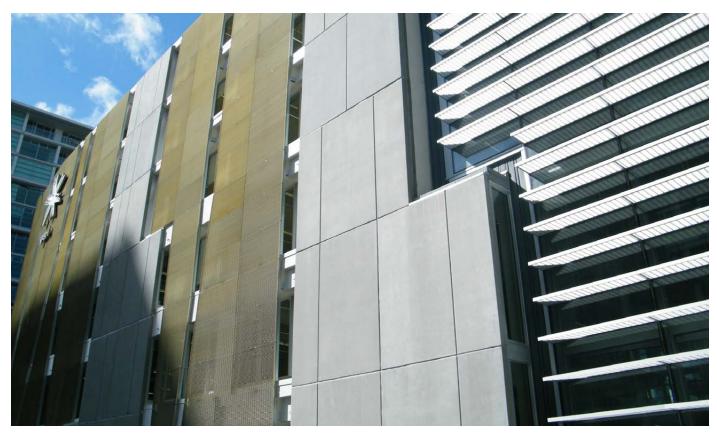
## Shadegrate $^{\text{\tiny TM}}$ & Shadetread $^{\text{\tiny TM}}$ - project examples



Warren & Mahoney offices in Christchurch - shadegrate™ installed as solar shading to exterior facade.



Lysaght building, Auckland - sliding canterlevered shadegrate™ system to facade.



Telecom Willis Tower, Wellington - shadegrate™ and Shadetread™ installed as vertical and horizontal solar shading.

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