



Facade Sustainability Tools

Thermal & Solar Control Analysis

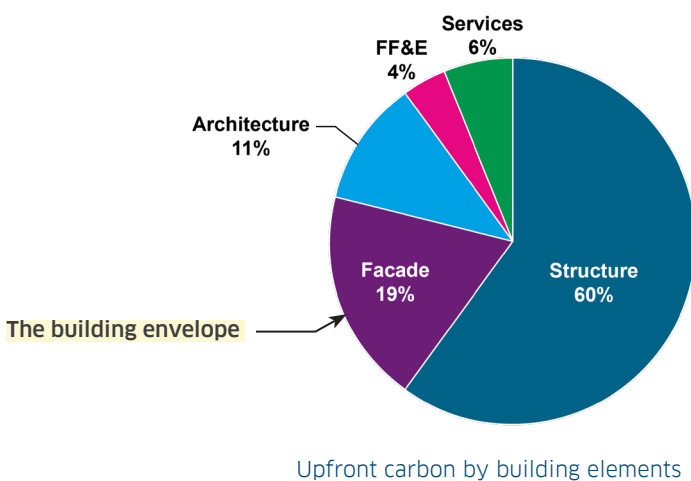
Thermosash 
BUILDING ENVELOPE SOLUTIONS™



Project Sustainability Analysis

The driving force behind optimising facade design.

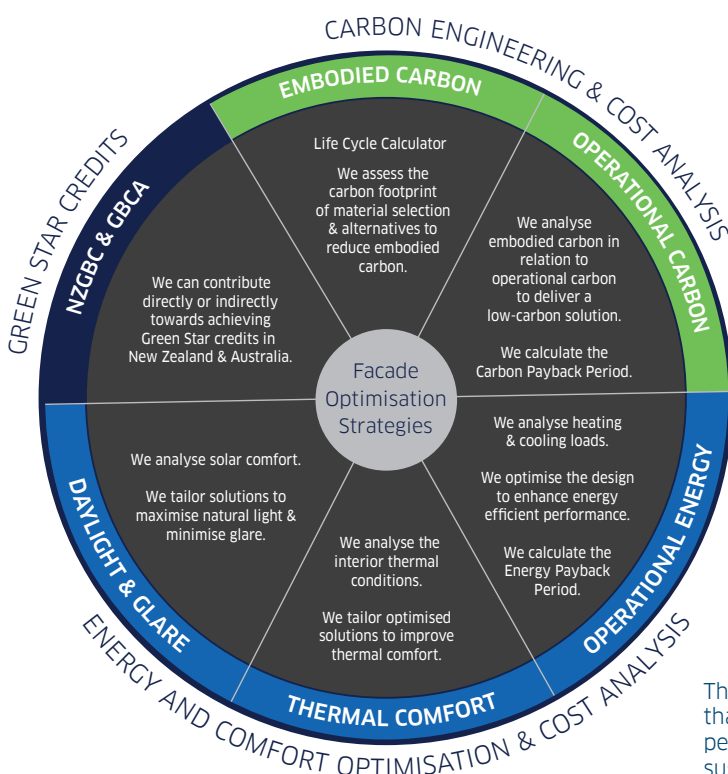
Our Thermosash Sustainability Team can provide expert analysis and optimised solutions to reduce carbon and operational energy throughout the project life cycle.



The facade of a building plays a significant role in the embodied and operational carbon impact of a project, as well as the overall operational energy use during its lifetime. Building envelopes that deliver efficient operational performance by decreasing energy costs and improving occupant comfort, as well as utilising lower embodied carbon materials, are no longer optional but essential for meeting compliance and sustainability goals.

Our Project Sustainability Analysis guides project specific decisions such as: material choices, facade systems, solar shading, glass selection, and aesthetics to optimise façades for sustainable high performance, durability and resilience – improving occupant comfort, reducing maintenance costs and ensuring a return on investment.

Sustainability is about changing how things are done in the present to create a positive impact upon the future.



Project Sustainability Analysis

To achieve optimised high performance outcomes we offer our clients the option of a Project Sustainability Analysis that covers different aspects of the full sustainability cycle. When specifying our facade systems, clients can engage us to implement one or several of our Facade Optimisation Strategies to achieve their project sustainability goals. To gain the most from our strategies, talk to us early on in the design phase of your project.

Thermosash Facade Optimisation Strategies that can be implemented to optimise facade performance to achieve project specific sustainability goals.



Thermal Comfort Analysis

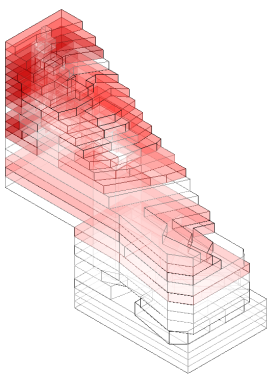
Occupant well being is an important aspect of design.

Thermosash analyses the thermal conditions of interior spaces to offer our clients the most effective solutions for improved occupant comfort.

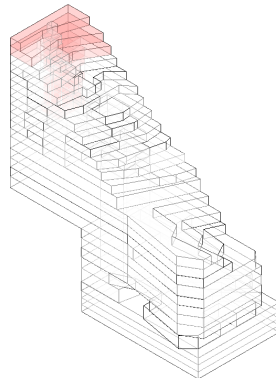
Comparing thermal comfort

Analysing thermal comfort and ensuring comfortable interior spaces has a direct impact on occupants' well-being. In recent years, thermal comfort—especially in the context of future changes in climate—has become an increasingly important aspect of design.

Thermosash not only focuses on reducing heating loads through efficient systems tailored for each project, but also analyses the thermal comfort conditions of interior spaces. We aim to offer clients the most effective solutions to improve comfort, such as applying solar shading in thermal discomfort areas. To provide these design options, Thermosash thoroughly analyses the proposed solutions based on total loads, impacts on solar radiation, glare, and other key factors. Then selects a high performance Thermosash solution to optimise thermal comfort.



Areas experiencing thermal discomfort in different months based on the reference design



Areas experiencing thermal discomfort in different months based on the optimised design

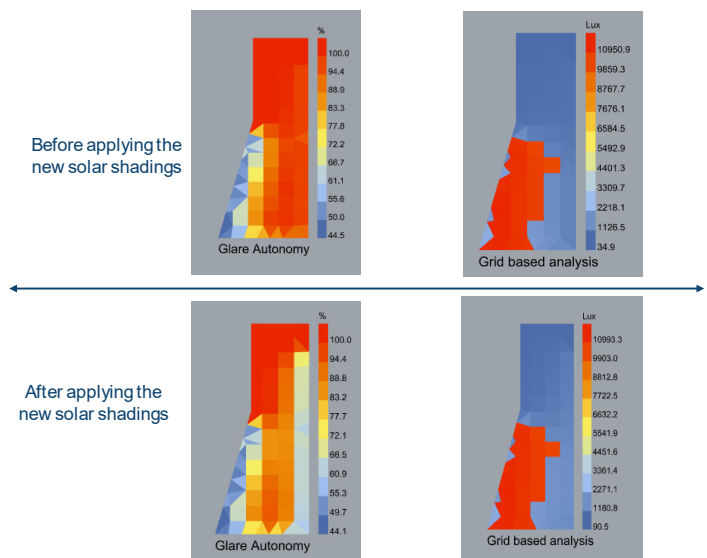
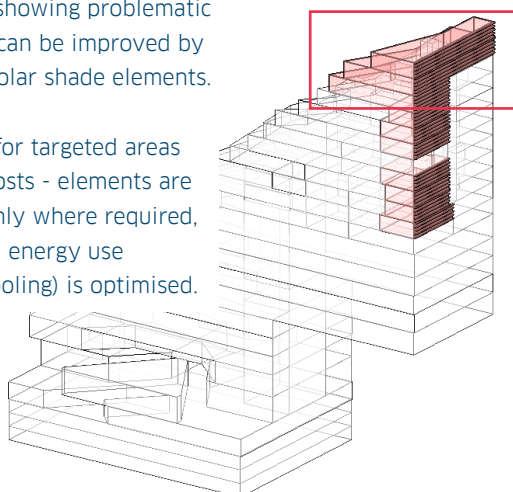
Daylight & Glare Analysis

Optimising operational energy through solar control.

Thermosash analyses the daylight and glare factors in a project to maximise natural light and minimise visual discomfort.

Modelling showing problematic areas that can be improved by installing solar shade elements.

Designing for targeted areas saves on costs - elements are installed only where required, and overall energy use (heating/cooling) is optimised.





Thermosash Solveil™

Solar shading product range custom engineered to your specific project requirements

Solar shading assists in reducing excessive heat gain, lowers energy consumption, and enhances occupant comfort.

By controlling sunlight penetration, shading systems help prevent overheating, minimize reliance on mechanical cooling, and improve indoor air quality and productivity. Shade elements also reduce glare, protect interior finishes, and contribute to sustainable building performance by cutting energy carbon emissions and operational costs.

Prefabricated

The system is prefabricated and can be unitised to streamline production and enable rapid installation - saving on programme time-frames and mitigating follow on trade risk. Precision prefabrication with cutting edge technology and high quality materials ensures durable quality systems and longevity of product lifespan.

Solveil™ support system

Thermosash provides a discreet engineered secondary support system to mount the Solveil™ solar elements to the building facade to suit project and site requirements.

Thermosash Solveil™ elements can also be seamlessly integrated with Thermosash suites without the need for additional trades. Our integration does not penetrate the facade wet zone ensuring a weathertight system.

Custom designed blades

Thermosash is New Zealand owned and operated and all our products are 100% New Zealand made at our facilities.

Our large variety of profiles provide design freedom and elements can be installed vertically, horizontally or at an angle.

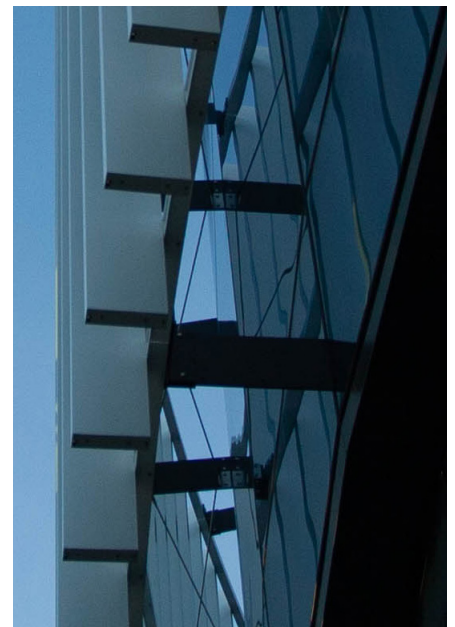
Custom profiles can be engineered to meet your bespoke design requirements.

Sizes (width) range from 40mm up to 1200mm.

The blade systems can be fixed or actuated via integrated BMS functions offering a high-quality external building shade system that can lower the heat gain on your building and add aesthetic value.



Manukau Hub, Auckland





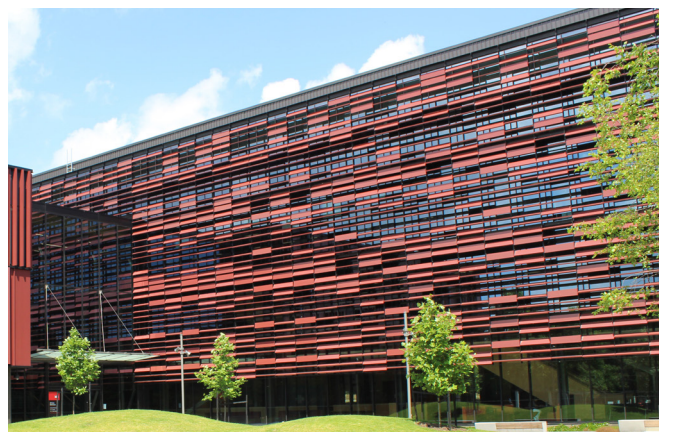
Westgate Library, Auckland



Syliva Park Office Tower, Auckland



Massey University Innovation Building, Auckland



AUT M1 - Mana Hauora Building, Auckland

Thermosash Commercial Limited | www.thermosash.co.nz

A Thermosash Group Company

Auckland (H/O)

158-164 Central Park
Drive,
Henderson, Auckland,
0610
New Zealand

P: +64 9 444 4944

Wellington

17-19 Marine Parade,
Petone, Lower Hutt,
Wellington, 5012
New Zealand

P: +64 4 939 4500

Levin

13 enterprise Drive,
Levin, 5571
New Zealand

P: +64 9 444 4944

Christchurch

12 Braeburn Drive,
Hornby, Christchurch
8042
New Zealand

P: +64 3 348 4004

Brisbane

Australia

Chrisco Oelofse

P: +61 46 868 8554