

SMART SUSTAINABLE LIVING

COMPANY BROCHURE



TK THERMOTEK

WHY THERMOTEK?

Thermotek customises world-class innovations and sustainable systems for the Australian climate. Our extensive knowledge and industry experience includes manufacturing, project management and field support. We make superior energy-efficient uPVC windows and doors with advanced German technology, ideal for your sustainable build projects.

WORLD-CLASS INNOVATIONS, AUSTRALIAN EXPERTISE

Established in 2012, Thermotek manufacture everything in Melbourne. We are the leading, commercial uPVC window and door supplier in Australia.

Our commitment to world-class standards has evolved us into utilising the highest quality profiles and hardware from Germany, combined with highest-grade Australian glazing. This is complemented with local customised designing, manufacturing capacity, on-the-field project support and an in-depth understanding of the local market and environment. This provides a significant value proposition to any designer, architect, or builder.

Customised Solutions

We have extensive, local knowledge and industry experience over many years. This has paved the way to our unwavering mission in making superior performance window and door systems accessible to Australia.

Innovative

Thermotek has a long-term, strategic partnership with aluplast, Germany. This has allowed us to access the most updated, innovative uPVC profile systems in the world. We customise the global innovations and systems for our climate and market, while exceeding Australian Standards. Experience superior energy efficiency with our windows and doors, perfect for modern, sustainable, passive design and energy rated projects.

Field Support Excellence

Our committed, experienced team include project management and on-site field services support.

Australian Made to Australian Standards

Thermotek adheres to the Australian Glass and Window Association's (AGWA) guidelines for compliant, energy efficiency: AS 2047/AS 1288/AS 4420.

Our windows and doors rate between Uw 1.2 to 1.9 by WERS (Window Energy Rating Scheme) for energy efficiency.

Thermotek uPVC systems are suitable for up to BAL 40 (Bushfire Attack Level).



MEMBERS OF



WHY UPVC?

Our focus is on achieving a net-zero future. Our aim is to reduce dependence on fossil fuels. This is one of the main reasons we chose uPVC as our material of choice, rather than timber or aluminium.



uPVC: The ideal global Material of Choice

uPVC stands for unplasticised polyvinyl chloride. This is the rigid, hard, durable version of PVC. uPVC remains the most important polymer for the construction sector worldwide. It is the most used window and door material across the construction industry in Europe and North America, due to its versatility and cost effective benefits. But there are many more reasons Thermotek chooses uPVC. Vinyl applications can perform for much longer than alternative materials. uPVC window profiles have a recycle lifespan of up to 300 years.

Superior Thermal Properties

uPVC products contribute to energy efficiency through low thermal conductivity, having three times the heat insulation efficiency of aluminium frames.

Strong and Lightweight

uPVC has abrasion resistance, is lightweight, and has good mechanical strength and toughness. These are key technical advantages for its success in building and construction applications.

High Durability

uPVC is resistant to weathering, rotting, chemical corrosion, shock and abrasion. It is thus the preferred choice. uPVC products require minimal maintenance. As a result, uPVC has the advantage of remaining in use for a long period of time before it enters the recycle chain. Studies have shown that uPVC has a working lifespan of over 60 years.

Cost-Effective Solution for Energy Performance

uPVC has been a popular material for construction applications for decades due to its physical and technical properties. uPVC is generally the most cost-effective solution to achieve superior energy efficiency performance and ratings.



WINDOW PROFILES
MADE WITH

70%

RECYCLED UPVC

UP TO

50%

ENERGY SAVINGS
DURING THE
PRODUCTION

UP TO

60%

AIR AND WATER
EMISSIONS SAVINGS

REDUCED EMBODIED CARBON FOOTPRINT

Our aluplast profiles are manufactured with 70% recycled uPVC. This gives savings of up to 50% in energy, over 60% in air emissions and more than 60% in water emissions.

The formulation used in our uPVC profiles is free of lead, barium and cadmium. Utilising additives in a much more targeted manner to ensure sustainable use.



SUSTAINABLE



ECO-MANAGEMENT

Emphasis on Recycling

The raw materials for our window profiles include a lead-free, calcium-organic chemical compound. We can manufacture and recycle window systems in an ecological and managed way.

UPVC's Life Cycle

Building a net zero carbon future requires driving down embodied carbon to an absolute minimum. This begins with reducing the carbon footprint of what and how we build. Thermotek's profiles and other materials are sourced from partners who share our eco-philosophy. A fully recyclable window and door means our uPVC products are part of a circular economy.

Decarbonising Australia's Buildings

As a manufacturer of a very important part of the building envelope, we recognise our responsibility towards the environment. This not only means sourcing materials from low-carbon footprint partners, but also playing a direct role in decarbonising Australia's construction industry by delivering low carbon footprint products and services.

THERMOTREE PROGRAM

Natural landscapes and forests play a huge role in building a sustainable future. Tree planting as part of our continual commitment to sustainability.

With every project collaboration, Thermotek will plant a tree on your behalf. With our Thermotree Program, we have partnered with a brilliant organisation, Carbon Neutral. The organisation focuses on large-scale revegetation of degraded farmlands and reforestation. Since 2008, Carbon Neutral have been restoring degraded farmland back to its natural ecosystem in the wheat belt of south-western Australia, known as the Yarra Yarra Biodiversity Corridor.



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THERMOTREE PROGRAM 71

INNOVATION

STAY COOL WITH GERMAN TECHNOLOGY

During hot weather, heat absorption in materials need to be minimised. Dark colours absorb heat rays more than light colours. This causes material damage and discolouration. Vast amounts of temperature changes inside and out can affect your windows and doors.

Our aluplast profiles mitigate this by using patented cool colour technology in collaboration with Continental foils to produce high surface heat resistance profiles. This technology achieves amazing weatherproofing and outstanding UV protection.

Suitable for any climate, the patented cool colour pigments repel radiating heat. They reflect up to 80% of the Near Infrared or NIR part of the sunlight. This allows profiles to stay 5°C cooler and colours to remain as vibrant from the day they were new, for many years to come.

Thermotek's advanced design and engineering tick all the boxes.

THE TECHNOLOGY OF COMFORT

Superior Profile Design

Our systems have a profile depth of 70mm, with 3-6 chambers. Suitable for all standard frame, sash, mullion, and transom profiles.

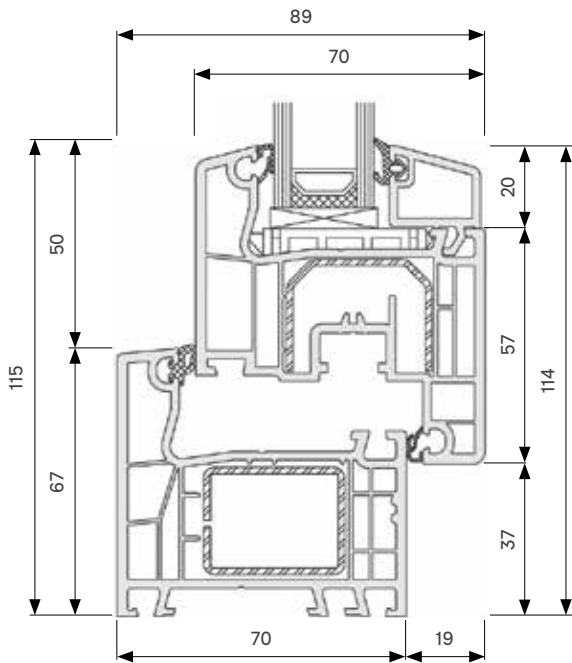
The multi-inner and outermost hollow chambers guarantee optimal thermal insulation properties. The outermost chambers allow for concealed drainage and air equalisation of the rebates. The large, middle chambers accommodate the structure of reinforcement profiles.



AVAILABLE IN NUMEROUS
DECOR VARIATIONS

70mm Profile Depth

- Thermal insulation of the standard combination $U_f=1.3 \text{ W/m}^2\text{K}$
- Backstop gasket system with two sealing levels
- Glazing thickness up to 41mm
- Design variety in the sash (classic-line recessed)
- Tested burglar resistance class RC2
- Concealed drainage is possible
- Excellent sound insulation up to noise insulation class IV
- 5-chamber system as standard combination



- 1 —Glazing gasket
- 2 —Sealing levels
- 3 —Profile chambers
- 4 —Glazing
- 5 —Glass strip
- 6 —Steel reinforcement

Single-Leg Glazing Bead

Single-Leg Glazing Bead is a secure, single-leg 'knock-In' or J-bead design. The single-leg bead makes for faster, easier installation. This provides the cleanest glazing platform. Installers love the way the single-leg bead locates. The single-leg format affords both stability and security while accommodating industry standard glazing tolerance. The secure bead system passes Secure by Design and PAS24 with ease.

Superior Gaskets Insulation

The frame's outer backstop gasket and the sash's inner backstop gasket optimise heat and sound insulation values. This prevents the formation of condensation in the fittings and main profiles. Frames are welded with pre-inserted TPE backstop and glazing gaskets. Choose from either a black or papyrus grey gasket.

Squareline Contemporary Profiles

These sculptured shape designs create stunning windows and doors. Beautiful both inside and out with a design focused on symmetry. These windows and doors are perfect for replacements. Easy to fabricate and stunning to look at.

There are positive stops at either extreme of the sculptured shape. These provide defined data points for fabrication machinery. They make fabrication easier in more basic fabrication environments.

Matching Bead and Profile Design

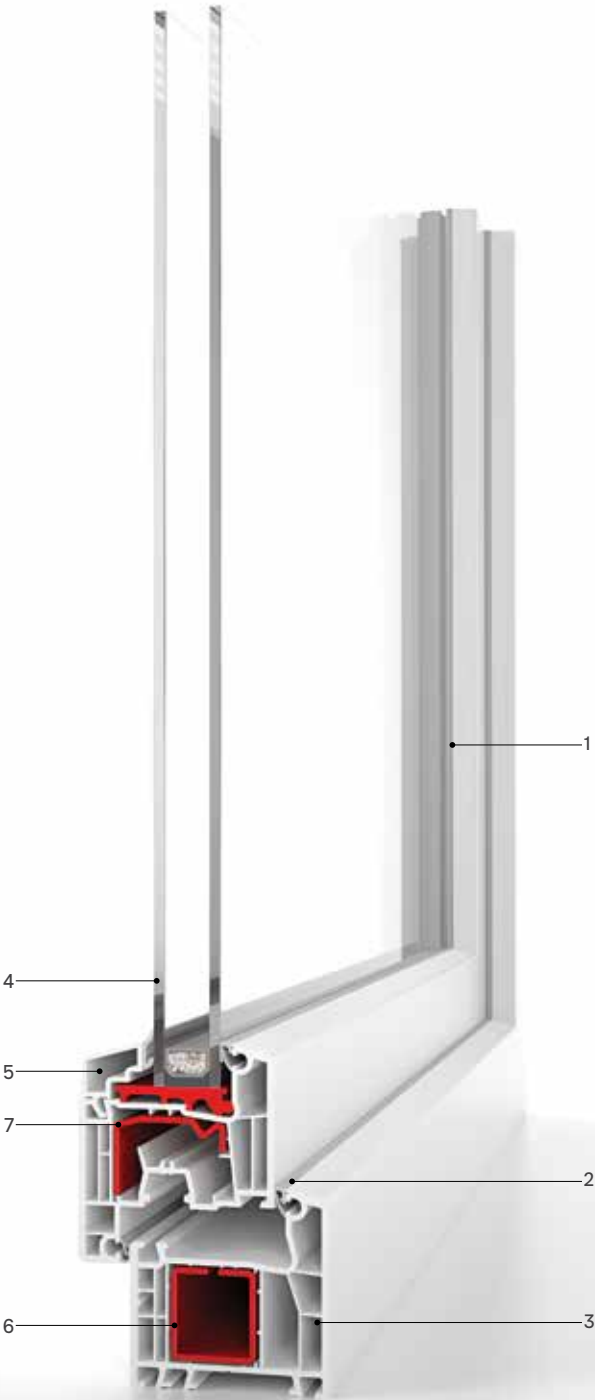
The bead shape mirrors the shape of the upstand to the glazing rebate. This provides a beautiful, balanced appearance with identical sightliness. The finished window looks identical when viewed from inside or outside.

Our 24mm high performance, double glazed sealed units have become the performance standard. The option of 28mm glazing depth is also available, suitable for a wider range of window and door specifications. Glazing beads for 24mm and 28mm sealed units offer a square line appearance. This enhances the profile detail. We can also produce triple glazing with ease utilising our 36 and 40mm glazing beads.

Co-extruded Gaskets

Co-extruded gaskets end the need for weather seals and gaskets be manually applied to frames and sashes. This is a time-consuming application following the fabrication welding process. The time saved with co-extruded gaskets provide greater fabrication efficiency.

Thermotek's gaskets provide outstanding weather performance and complement the profiles' elegant sightliness. Co-extruded gaskets remove "the shrinking back" effect typical of old gasket systems. They prevent any gaps in corners.





SCAN TO LEARN MORE ABOUT
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