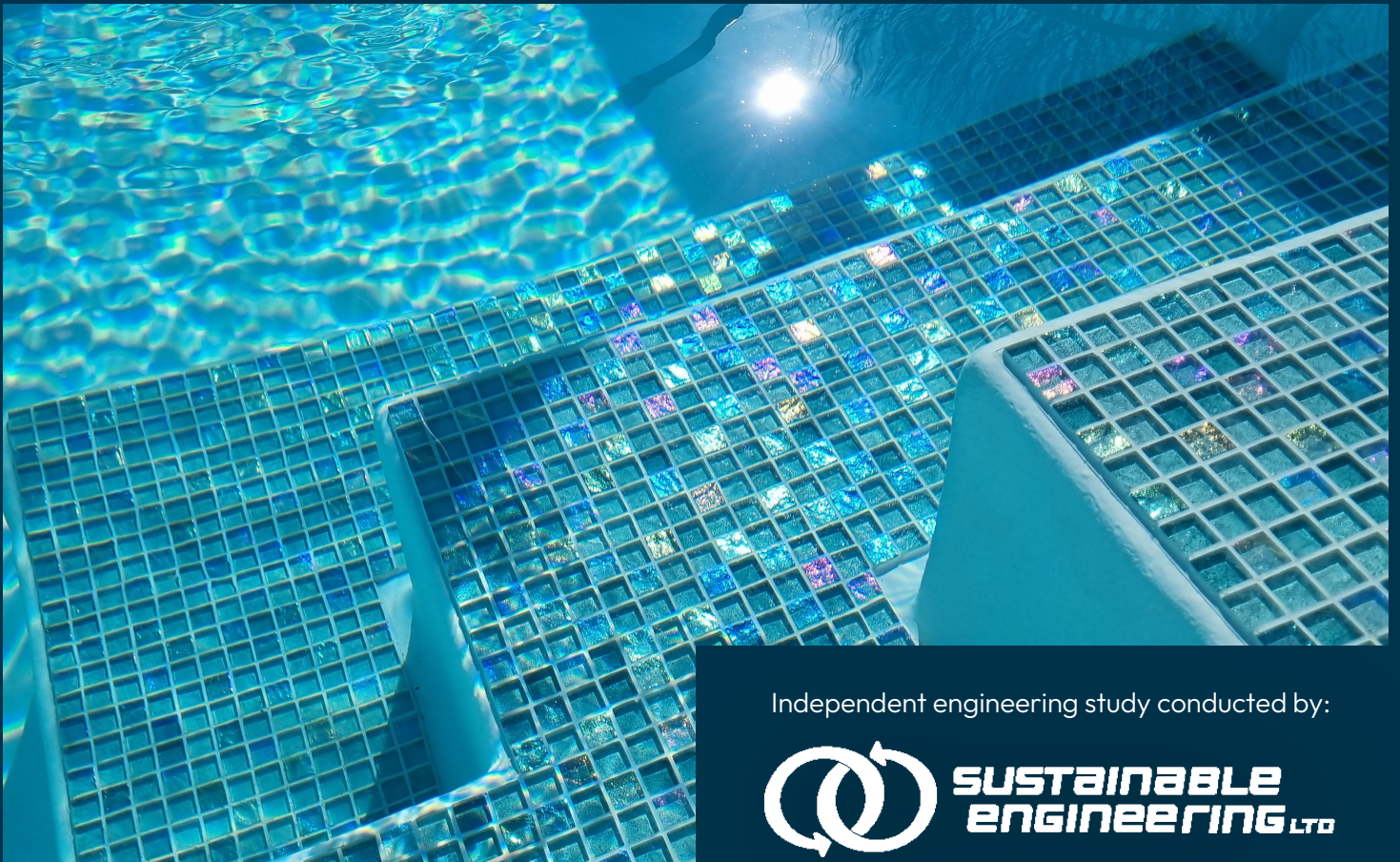




The built-in thermal advantage

How Mayfair's celuka board construction cuts pool heating costs by 26%



Independent engineering study conducted by:





Planning your dream pool

When planning your dream pool, it is easy to focus on shape, position, and landscaping. However, one of the most significant long-term considerations for any pool owner is running costs, specifically pool heating.



Most standard fibreglass pools are installed directly into the ground with uninsulated walls. Because ground temperatures are significantly cooler than your target water temperature, an uninsulated pool constantly loses heat into the surrounding earth. Your heat pump has to work harder and run longer just to maintain warmth. At Pinnacle Pools, every pool we build uses the Mayfair Pools system. Mayfair Pools are constructed using a high-density, 20mm closed-cell Celuka foam board to line the pool walls and form the structure before fibreglassing.

To verify the real-world impact of this design, we commissioned Sustainable Engineering LTD to conduct an independent thermal modeling study comparing a Mayfair insulated pool against a standard fibreglass pool. The results prove that Mayfair's built-in insulation provides a massive efficiency advantage, saving energy, reducing electricity bills, and keeping your pool warmer for longer.

26% lower energy usage*

Mayfair's insulated walls reduce seasonal heating electricity consumption by over a quarter compared to standard fibreglass pools.

\$644 saved every season*

Save an average of \$644 in electricity costs per heating season (Oct-Mar).

1,840 kWh energy reduction*

Drastically reduce your home's energy footprint by saving 1,840 kWh of power every year.

Built-in as standard

Celuka board is an inherent structural component of the Mayfair build system, giving you thermal insulation at no additional add-on cost.



Stopping heat loss where it matters most

Water heated to a comfortable 28°C will naturally seek to transfer its heat to cooler surroundings. While pool covers protect the surface, heat loss through pool walls into the ground is often overlooked.

Standard fibreglass walls:

With an R-value of just 0.01m² K/W, standard fibreglass offers almost no thermal resistance. Heat continuously drains out into the earth throughout the season.

Mayfair Celuka board walls:

By combining 20mm closed-cell Celuka board with fibreglass, Mayfair pool walls achieve an R-value of 0.31m² K/W, providing over 30 times the thermal resistance of standard fibreglass.



Seasonal operating cost comparison

The independent thermal study modeled a standard 8.2m x 4.0m x 1.5m deep pool heated to 28°C over a standard October to March heating season (calculated using a standard electricity tariff of \$0.35 per kWh):

Pool construction type	Seasonal power demand (kWh)**	Seasonal heating cost (\$)**	Total savings**
Standard uninsulated fibreglass	7,177 kWh	\$2,512	—
Mayfair celuka board (Pinnacle Pools)	5,337 kWh	\$1,868	Save \$644 / season

**Modeling conducted by Sustainable Engineering LTD using PHPP climate data (Paraparaumu weather station).

Total electrical input includes heat pump operation (COP 3.0) and filtration pump usage.



How to maximise your pool's energy efficiency

Based on the findings of the engineering report, here are three expert recommendations to keep your pool heating costs as low as possible:

①

Invest in a high-spec thermal cover

While Celuka board insulates the pool walls, surface evaporation remains a major source of heat loss when the pool is open. Upgrading from a standard 4mm cover to a polycarbonate slate cover.

②

Cover your pool when not in use

Keeping your pool cover on overnight prevents massive evaporative and radiative heat loss.

③

Faster warm-up in spring

Uninsulated pools lose significant energy trying to warm up the cold surrounding earth in October. Mayfair's insulated walls allow your pool water to reach target temperatures faster at the start of the season.

Ready to build a smarter, warmer pool?

Experience the Mayfair advantage with Pinnacle Pools. Talk to our expert team today to discuss your site, design a custom pool shape to fit your backyard, and enjoy lower running costs for years to come.

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***Note on study:** This independent report was prepared by Sustainable Engineering LTD on 18 June 2026, comparing energy performance and heat loss for a typical heated pool using PHPP climate data for the Kāpiti region over an October to March heating season.