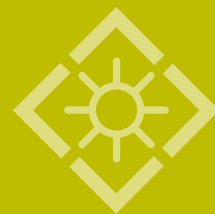


Planitherm[®] XN

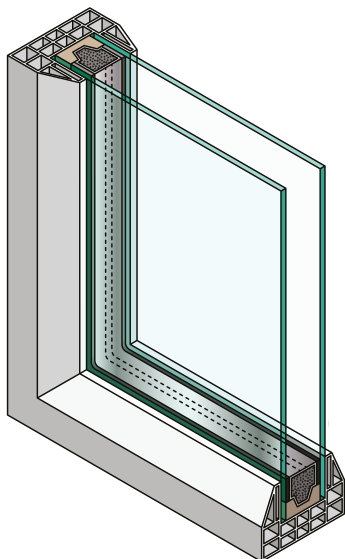
The premium Low-E glass



Introducing Planitherm[®] XN a very clear
Low-E glass for use in double glazing
applications in colder climates.

Viridian[™]
Glass

The new generation of Low-E glass



What is Planitherm® XN?

Planitherm® XN is the best Low-E glass available in New Zealand for double glazed windows. By using an advanced coating on the glass it reflects radiated heat back into the room, capturing free energy from the heat and light of the sun. Planitherm® XN reduces heat loss by up to 59% compared to standard double glazing.

- Advanced glass coating
- Reflects heat into a room
- Lets in lots of light
- Ideally suited for double glazing units

59%

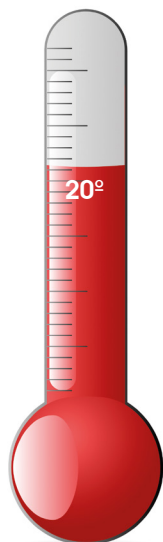
Planitherm® XN double glazed unit has **reduced heat loss** compared to standard double glazing

A lighter, brighter home

Planitherm® XN double glazing provides significant improvements over standard glazing. And with less tint than other Low-E glass, it is the clearest glass available in New Zealand.

- More light
- Improved clarity

81% light transmission



Ideal for colder climates

Planitherm® XN's superior glazing insulation reduces the cold spots and drafts usually experienced near windows and doors. And because the interior pane is kept closer to room temperature, condensation is less likely to occur.

- Reduced condensation
- Less cold spots and drafts

20°

Minimum temperature the WHO recommends for children

PLANITHERM® XN premium low-e glass



Maximise your energy savings

By optimising your reflected heat with Planitherm® XN glass you will require less power to heat your home. Instead, you can harness free energy from the sun's heat and light.

52%* more savings
than standard double glazing
*Estimates are based solely on centre-of-glass U-values.

Prevent up to 45%* of heat loss through your windows and doors

Did you know that up to 45% of your home's warmth escapes this way?
Fortunately, you can use Planitherm double glazing throughout your house, including:

- Windows and skylights
- Patio doors, French doors and other external doors
- Conservatories and sunrooms

*Single-glazed house insulated to pre-2007 Building Code requirements.



The smarter option

Planitherm® XN double glazing is Europe's best-selling range of high performance Low-E glass. And with Planitherm® XN's superior benefits - including greater energy savings - it's your best investment in your home.

- Windows have a long lifespan - it's worth choosing the best
- You'll save money over time and recoup the initial cost

Planitherm® XN performance data

Planitherm® XN Double Glazing Performance Data					
Possible glass configurations	U-value with Argon	Shading Coefficient	Visible Light Transmission	Tdw-ISO	Rw
4mm Clear / 16mm / 4mm XN	1.1	0.69	81%	68%	30
4mm XN / 16mm / 4mm Clear	1.1	0.69	81%	68%	30

Where double glazing units have been used, Planitherm XN Low-E coatings are on surface 3 and 5. Rw with asterisks are estimates. Centre-of-glass U-Values were calculated by Calumen II software based on EN673 conditions. SC, VLT and Tdw-ISO values were calculated by Window 7 software based on NRFC 100-2010 conditions.

Planitherm® XN Frequently Asked Questions

What is Low-E glass?

Low Emissivity ("Low-E") glass has a special invisible coating bonded to the glass inside the double glazing unit. This coating reduces heat loss from the home, by essentially acting like a "heat mirror" that reflects heat back into your home. Low-E glass greatly enhances the insulating performance of glazing.

What is Planitherm® XN Low-E glass?

Planitherm® XN double glazing is a superior Low-E Glass. It has a transparent metallic coating on one side of the inner pane of the double glazed unit. This coating reflects the heat generated inside your house back into the room rather than allowing it to escape through the windows. This coating allows free heat and light from the sun to pass through the glass, warming the room.

Why is Planitherm® XN better?

Planitherm® XN double glazing reduces heat loss more effectively than many other Low-E glasses. In addition, other Low-E glasses can have a 'haze' to the glass which is visually detracting and has a lower insulation performance.

What is Argon?

Argon is an inert gas that has much lower thermal conductivity than air. It is an excellent insulator because of this property. Using Argon further reduces heat loss from the inside pane of glass to the outside pane of glass, and vice versa, to a greater extent than using simply air between the two panes of glass.

What is a U-Value?

U-Value is the measure of the rate of heat loss through the

glass, due to environmental differences between the outdoor and indoor air. It is expressed as W/m^2K (watts per m^2 per 1 degree kelvin). The lower the U-Value, the lower the heat loss and the better the insulation.

Does Planitherm® XN and Argon cost more?

Planitherm® XN double glazing costs more than standard double glazing. But like any investment in your home – be it LED lighting, granite benches or luxury fittings – people value the benefits of high-performing glass. It also delivers greater ongoing energy savings.

What does Shading Coefficient mean

SC is the ratio of solar heat gain through glass relative to that through 3mm clear glass. The lower the SC, the better the glass restricts solar heat transmission.

What is Visible Light Transmission?

VLT is the percentage of visible light passing through the glass. VLT is measured in the light range of 380 to 780 nm perpendicular to the glass.

What does Rw mean?

Rw (Weighted Sound Reduction Index) is the measure of the airborne sound insulation, corrected for the ear's response. The higher the Rw, the better the insulation.

What does Tdw-ISO mean?

Tdw-ISO (Damage Weighted Transmission) is the percentage of UV and visible light in the light range of 380 to 600nm passing through the glass. The lower the Tdw-ISO, the slower fading occurs.

When Planitherm XN is used within double glazed units the reduced heat loss and power savings compared to standard double glazing are significant:	Reduced heat loss compared to standard double glazing	Reduced heat loss compared to single glazing	Power savings compared to standard double glazing
Planitherm 1.3T double glazed unit (4mm / 16mm spacer with argon gas / 4mm Planitherm)	52%	78%	48%
Planitherm XN double glazed unit (4mm / 16mm spacer with argon gas / 4mmXN)	59%	80%	52%