



TAKE YOUR HOME  
COMFORT TO A  
WHOLE NEW LEVEL

*Low E double glazing from  
Metro Performance Glass*



**METRO**  
PERFORMANCE GLASS



## A WARMER, DRIER, MORE COMFORTABLE HOME



### SUPERIOR GLASS TECHNOLOGY

The glass you choose will make a difference to the comfort of your home and the size of your energy bills.

Metro Performance Glass can provide Low E glass that greatly increases the effectiveness of double glazing to give you superior home insulation.

## WHAT IS LOW E GLASS?

When looking out through Low E (low emissivity) glass the virtually invisible high-tech coating, lets light into your home, while reflecting heat. It improves double-glazing to further insulate your home in winter, and help to keep your home cooler in summer.

Low E glass is available in a range of performance levels – simply choose the level that best suits your home and requirements.

## LOW E BENEFITS

### GREATER INSULATION, MORE COMFORT

Improving your window insulation reduces heat loss and solar gain, reducing your heating needs in winter and cooling requirements in summer.

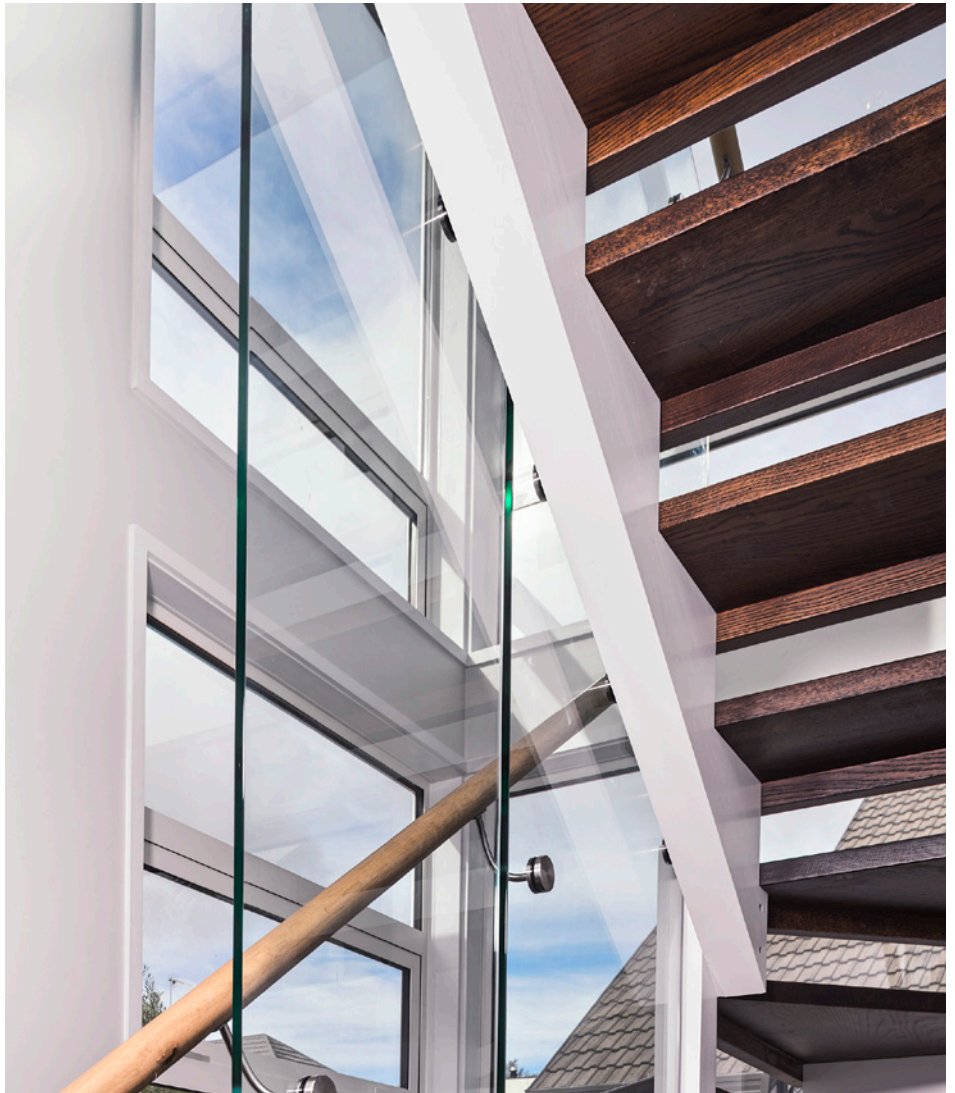
Better insulation makes it easier to keep temperatures constant, so your comfort level is increased.

### LESS CONDENSATION

Low E double glazing increases the internal glass surface temperature, which reduces the likelihood of condensation on the inner glass surface. This means your home stays drier, which in turn makes for a more healthy living environment.

### SMALLER ENERGY BILLS

You will use less energy to heat and cool your home, providing energy savings over the course of a year.



### ENVIRONMENTALLY FRIENDLY

Depending on your Low E double glazing selection there is less reliance on heating and cooling, which means fewer energy resources are required to keep your home comfortable all year round.

### GLARE REDUCTION

Large areas of glass can let in too much light, creating glare. This can be reduced with Low E glass

in conjunction with a body tinted glass, a trade off however is that the home will be darker in the day.

Reducing glare can also help reduce fading on your furnishings.

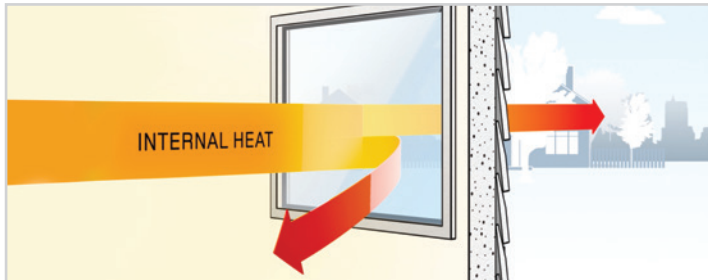
### IMPROVEMENT ON THE BUILDING CODE

Low E double-glazed windows improve on the minimum performance of windows in new homes, as required by the NZ Building Code.

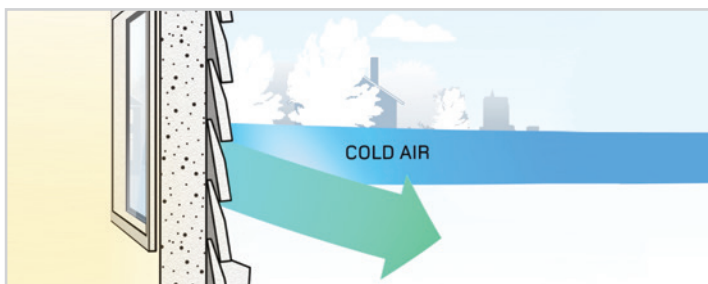


# HOW LOW E WORKS

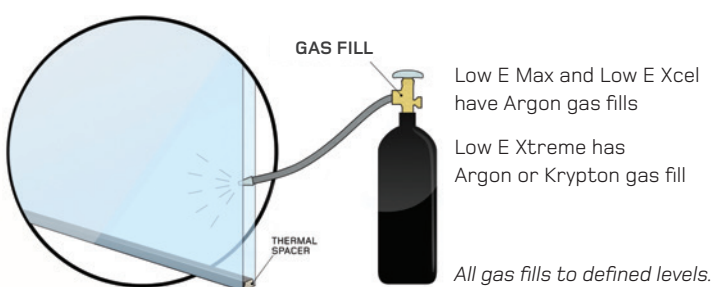
The protective, high-tech coating on Low E glass effectively forms a barrier, reflecting heat back from the glass to reduce heat loss, while at the same time reducing solar gain.



In particular during winter, Low E glass reflects heat back into the room, so less heat is lost through the windows. In summer, the sun's heat is reflected back outside.



Low E glass also works to keep the heat in during winter, reducing the chance of condensation.



Low E double glazing performance is increased with the addition of a thermal spacer and gas.



## OTHER POINTS

Houses in different parts of the country are suited to different types of Low E double glazing. It is important to note your priorities in terms of insulation levels, solar gain and sound control etc. to ensure you get the best performance glass for your home.

Low E glass is so efficient, in some areas morning dew can form on the outside glass. This is mostly seen with homes that have no eaves, are sheltered from prevailing breezes, with high humidity and cold conditions overnight.



## ADDITIONAL BENEFITS OF DOUBLE GLAZING

Metro Performance Glass can customise your double glazing to include sound control, safety and security features.

### NOISE CONTROL

Double glazing reduces sound levels from outside, ensuring your home is quieter and more comfortable than single-pane glazing.

Acoustics can be improved by varying the thickness of the glass panes in your windows, inclusion of wider spacer bars and or laminated glass.

Special acoustic glazing can be included in your windows if desired.

For a specific sound solution, Metro recommends the services of a sound engineer.

### SAFETY AND SECURITY

Your window supplier, glazier and Metro will ensure there is toughened or laminated safety glass when required to comply with the New Zealand Standards.

Toughened safety glass is effective towards safety, strength and temperature resistance.

For areas where someone may walk into the glass the New Zealand standards require it to be toughened and or laminated to reduce the risk of injury in a the rare case of a breakage.

# CHOOSE THE LEVEL OF PERFORMANCE YOU NEED

Metro aims to increase the performance of the windows in your home. Your needs may be met by our Classic range, but you may require a custom solution. This is why we have developed additional Low E options that ensure you can choose a glass that meets both your requirements and your budget.

For example, while Low E glass has a slight visual hue, Metro's Low E Xcel glass has a visible light transmission of 81%. This is virtually the same as clear glass, which has a transmission of 82%.

## THE METRO PERFORMANCE SELECTION TOOL

To help you select the right glass type for your new joinery, we have introduced a selection tool for our Low E range. This gives you a comparison with classic double glazing, and good, better, best Low E options.



## WEERS RATING\*



HEAT RETENTION – keeping the warmth in and the cold out



CONDENSATION AVOIDANCE – reducing the chance of internal condensation and crying windows



REDUCTION IN SOLAR GAIN – keeping your home cool and comfortable in hot weather



VISIBLE LIGHT TRANSMISSION – maintaining natural light levels inside your home



With increased heat retention performance and or greater solar control there are reductions in heating or cooling costs



With increased heat retention there is greater chance of dew forming overnight

<sup>1</sup> Based on an average new house lot of joinery to determine the average R-value (Rw avg) and Window Energy Efficiency Rating System (WEERS) rating. The average house lot of joinery totals 41m<sup>2</sup> of glazing in a typical frame with 3 doors and 17 windows. The Indicative WEERS star ratings shown are a guide and will vary with different frame types and or window/door sizes. The WEERS scale is out of 6, the higher the star rating the better the windows thermal performance. <sup>2</sup> Timber and uPVC/Fibreglass frames may achieve higher ratings.

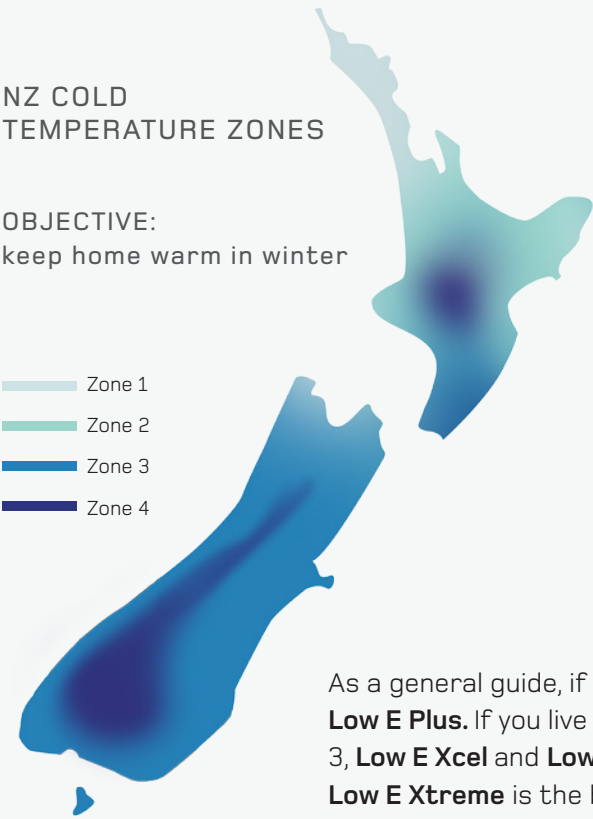
Metro Performance Glass Double Glazing units are manufactured in New Zealand for New Zealand conditions and are regularly tested by BRANZ, compliant to EN 1279.

# WHICH LOW E GLASS?

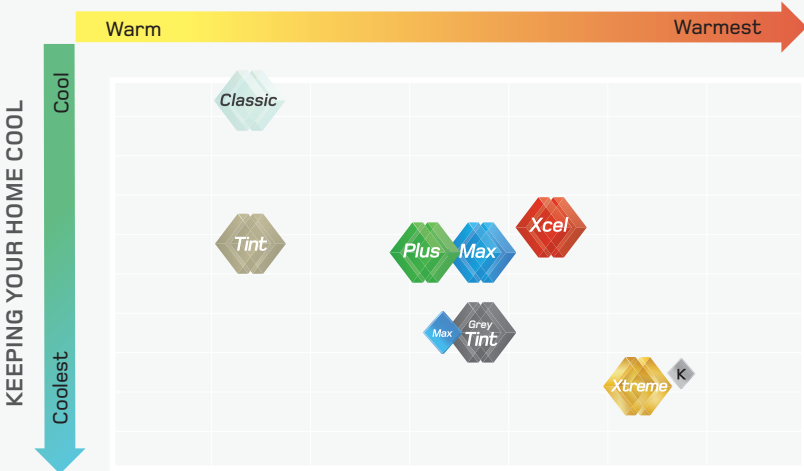
## NZ COLD TEMPERATURE ZONES

OBJECTIVE:  
keep home warm in winter

- Zone 1
- Zone 2
- Zone 3
- Zone 4



## KEEPING YOUR HOME WARM



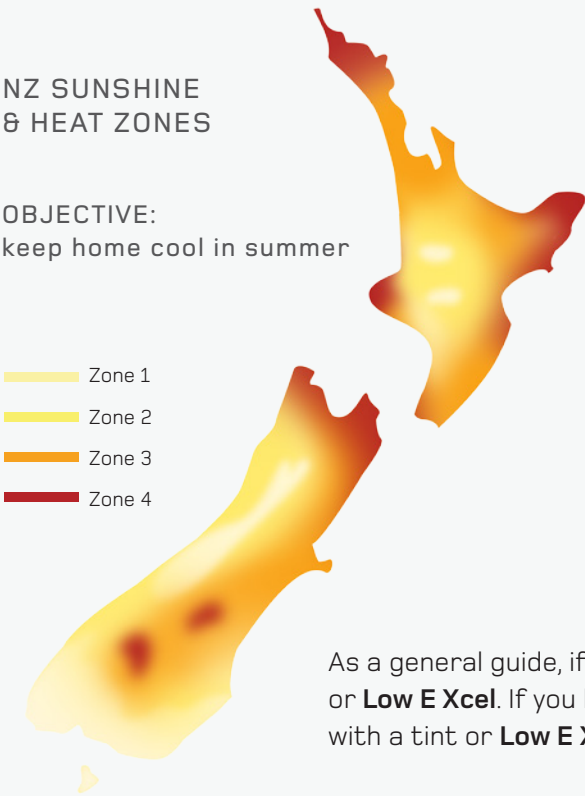
Note tint is an average of Bronze and Grey, Green will let in more light between Low E Max and Xcel

As a general guide, if you live in Zone 1, your recommended choice is likely to be **Low E Plus**. If you live in Zone 2, a suitable glass choice is likely to be **Low E Max**. In Zone 3, **Low E Xcel** and **Low E Xtreme** are likely to be your suitable options. And in Zone 4, **Low E Xtreme** is the best option for your home.

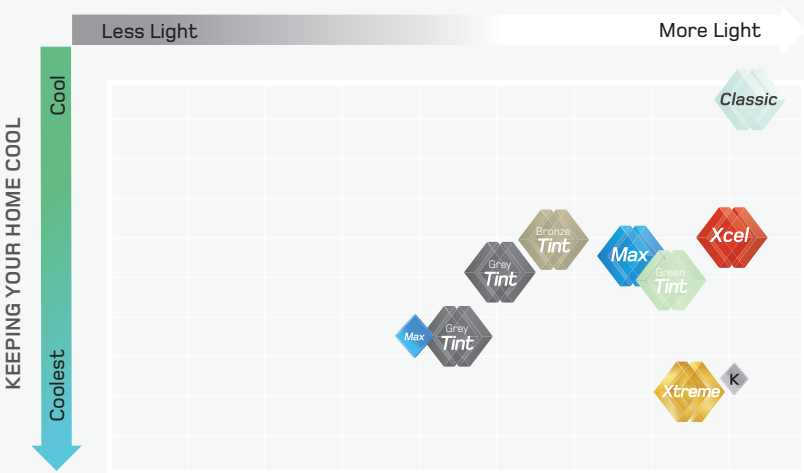
## NZ SUNSHINE & HEAT ZONES

OBJECTIVE:  
keep home cool in summer

- Zone 1
- Zone 2
- Zone 3
- Zone 4



## NATURAL LIGHT



As a general guide, if you live in Zone 1, your recommended choice is likely to be **Classic** or **Low E Xcel**. If you live in Zone 2 or 3 **Low E Max**. And in Zone 4, **Low E Max** combined with a tint or **Low E Xtreme** for solar control and an open and bright home.

Notes : Keeping your home warm is measured by U Value  
Keeping Your Home Cool is measured by Solar Factor  
Natural Light is measured by Visible Light Transfer





Contact your local  
Metro representative  
for more information  
about our range of  
Low E Double Glazing.

[www.metroglass.co.nz](http://www.metroglass.co.nz)



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