

Warm,
light-filled,
peaceful
homes.





Windows are a huge part of your home's appeal. They give you natural light, connect you to your outdoor spaces and make every room feel more open, airy and alive.

Our Low E glass does more. It creates an effective layer of insulation to help keep your home comfortable, light-filled and peaceful as well.

Our remarkable glass is designed for double glazed windows, and uses special 'low emissivity' ('Low E') coatings. This technology lets in light and heat from the sun, but also helps stop the warmth in your home from escaping. We even have solar control glass that reduces the risk of your home overheating in the hotter summer months.

Thanks to this technology, Metro's Low E glass gives your home up to twice as much heat retention as standard double glazing.

You can enjoy a more peaceful, comfortable home year-round and lower power bills.

Building or renovating is the time to invest in materials that will make a real difference to your quality of life – and there are few that will make a bigger difference, every day, than Metro Low E glass.

The perfect match for your home

We have three types of glass to choose from. Each one has different strengths.



Xcel™ Low E

- The classic option, perfect for most New Zealand homes
- Up to 61%* better heat retention
- Lets in 80% of visible light, enabling warm, naturally light-filled spaces



Xtreme™ Low E

- The all-round performer, keeps your home comfortable all year round, warmer in winter plus solar control to keep you cooler in summer
- Great for large sunny windows, or when you want to limit potential overheating
- Up to 61%* better heat retention
- Lets in 75% of visible light, enabling warm, naturally light-filled spaces
- Reduces solar heat by up to 48%* making it perfect for homes where overheating may be an issue

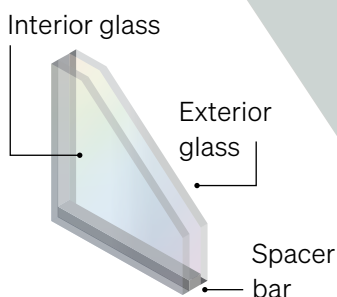


SunX™ Grey Low E

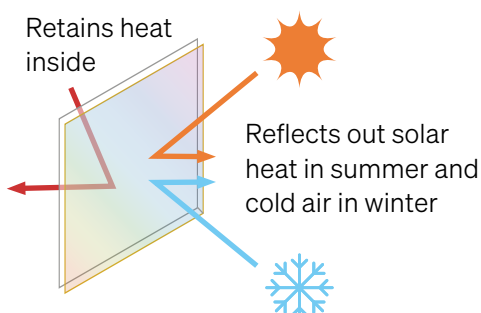
- The specialist solar control option, tinted for privacy. Ideal for homes in warmer regions with a great deal of sun
- Up to 54%* better heat retention
- Lets in 42% of visual light, protecting you from the sun's glare
- Reduces solar heat by up to 58%* making it perfect for homes where overheating may be an issue
- Has a subtle, neutral grey tone. The colour is consistent even when used across different thickness, unlike other tinted glass which gets darker as the glass gets thicker

**Compared to standard double glazing*

Double glazing



How Low E works





Warm.

Windows – especially large windows – are often the largest source of heat loss in New Zealand homes.

Older single glazing is the worst culprit and is often responsible for half of all heat lost. This is because the single pane of glass is exposed to the cold outdoor air, it creates cold draughts and can also lead to condensation forming.

Standard double glazing is up to 52% more efficient than single glazing at retaining heat and keeping out the cold.

Metro's Low E double glazing goes even further - up to 81% more effective than single glazing. This exceptional insulation also reduces the likelihood of internal condensation on the glass.

The difference in your comfort and heat retention is striking. Think of it as a complete winter-proofing for your house, and the end to big power bills.



Heat Retention

Keeping warmth in and the cold out



Light-filled.

Sun pouring into a room is beautiful, lifting everyone's spirits and making a home feel light and airy. It's also perfect for using the sun to passively heat your home, especially with double glazing that keeps that heat in.

But lots of sunshine does come with some challenges.

Letting in too much sunlight can make rooms less liveable. It can also give you more heat than you want, especially in summer.

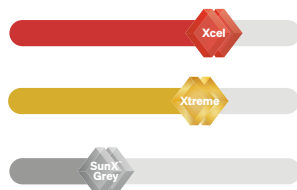
Over time, unfiltered sunlight can also fade your carpets, fabrics, artwork, books and pretty much anything else.

Fortunately, you can choose a Metro Low E glass to give you the right level of solar control. It's like choosing sunglasses for your home. It gives you the level of light and heat admission that's right for your home's design and location.



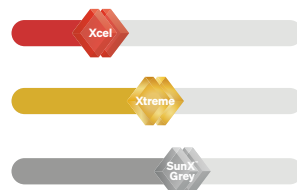
Visible Light Transmission

Maintaining natural light levels inside your home



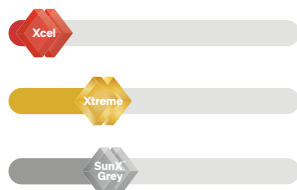
Solar Heat Control

Keeping your home cool and comfortable in hot weather



Fading Protection

Protects furnishings from fading and sun damage





Peaceful.

As well as keeping your home warm, dry and light, your Metro Low E double glazing will help make your rooms peaceful and calm.

All of our double glazing products reduce sound levels entering your home. It might be the sound of rain or wind. Or it might be traffic, neighbours and passers-by. If you live in an area with even a moderate level of constant background noise, the difference is noticeable.

If stronger noise reduction is important for your home we can add special acoustic laminates to your glass. Please talk to your designer or Metro Glass representative to find out more.



Beautiful.

Your windows are a dramatic element of your architecture, from both inside and out. So it's no surprise we select the glass for them very carefully.

All Low E glass uses coatings to improve their performance. We take pride in balancing the effectiveness of our Low E glass coatings with the effect they have on your home's appearance. Our glass gives your windows subtle natural hues and reflectivity to complement your home's beauty and elegance.

As a result, our glass captures every day's changing light and colour, connecting you to your surroundings and enhancing the appearance of your home. With our glass you'll feel just as good seeing your windows from the outside as you do looking out of them from the inside.



OUR GLASS WORKS WITH EVERY TYPE OF WINDOW FRAME

Our Low E glass work perfectly with all types of window frames: wood, aluminium and uPVC



Which Metro glass option is right for your home?



We have three different types of Low E glass, each with different attributes, but they aren't 'good, better, best'.

It may sound like a complicated choice, but it simply comes down to your home and what you want most from your windows.

Our Low E double glazing is available in clear float, laminate, tint and obscured combinations.



Heat retention

Low E double glazing is one of the best ways to keep your home warm in winter, while saving on your heating bills. What level of heat retention do you need?

EXCELLENT

EXCELLENT

EXCELLENT



Solar heat control

A lot of sunshine can start overheating your home, especially if you have large north- or west-facing windows. How much solar control do you need?

LOW

HIGH

VERY HIGH



Natural light

Windows are brilliant at letting in the natural light, but for some homes the sunlight can be too much. How much natural light do you want let into your home?

HIGH NATURAL LIGHT

HIGH NATURAL LIGHT

MEDIUM NATURAL LIGHT



Fading protection

How much protection do your furnishings need from fading and sun damage?

To increase fading protection further, consider adding a tint or laminate to your double glazing.

LOW PROTECTION

MEDIUM PROTECTION

MEDIUM PROTECTION



Privacy

Do you need your windows to be tinted for privacy?

NO

NO

YES



Colour hue

We meticulously select glass with subtle natural hues and reflectivity. They give your home beauty and elegance through a stylish, modern aesthetic.

CLEAR

LIGHT CHAMPAGNE

SUBTLE GREY TONE



Sound reduction – Our double glazing products all reduce sound levels in your home. If stronger noise reduction is important for your home we can add special acoustic laminates to your Low E glass. Please talk to your designer or Metro Glass representative to find out more.



Budget – Our glass range has different attributes, but they aren't necessarily 'good, better, best'. Some of the biggest influence on the cost of your glass will depend on your homes design, orientation, local climate and what is required for your building compliance. Please talk to your designer or Metro Glass representative to find out the best option for you.

Low E Xcel Xcel™ - Maximise warmth and natural light

| | | | | | EN 673 | | EN410 | | | | |
|--|---------------------|-------------------------|---------------------|---------------------|--|--|---|--|--|---|---|
| Building Code Acceptable Solution H1/AS1 Schedule (see schedule notes) | | | | | Heat Loss & Condensation | Visibility | | | Heat Gain | | Fading |
| Window System Material Type by Climate Zone | | | | | Ug ² | VLT ³ | VLR-E ³ | VLR-I ³ | SF ³ | LSG ^{3,4} | Tdw-ISO ^{3,5} |
| Make-up mm ¹ | Standard Aluminium | Thermal Break Aluminium | uPVC | Timber | U Value Insulation value, lower is better | Visible Light Transmission Higher % means more daylight transmitted | External Reflectance Higher values mean more reflection seen | Internal Reflectance Lower the number the easier to see through the glass | Solar Factor (g) Lower number means less solar heat coming in | Selectivity Higher number means more natural light and less solar heat | Damaged Weighted Transmission Lower values mean better fading protection |
| 4-8-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.7 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |
| 4-10-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.4 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |
| 4-12-4 | | Zones 3-4 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.3 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |
| 4-14-4 | Zones 1-6 Stage One | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.1 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |
| 4-16-4 | Zones 1-6 Stage One | Zones 5-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.1 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |
| 4-18-4 | | Zones 5-6 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.1 | 80% | 14% | 13% | 59% | 1.35 | 0.68 |

Low E Xtreme Xtreme™ - Supreme solar control with maximum light

| | | | | | EN 673 | | EN410 | | | | |
|--|---------------------|-------------------------|---------------------|---------------------|--|--|---|--|--|---|---|
| Building Code Acceptable Solution H1/AS1 Schedule (see schedule notes) | | | | | Heat Loss & Condensation | Visibility | | | Heat Gain | | Fading |
| Window System Material Type by Climate Zone | | | | | Ug ² | VLT ³ | VLR-E ³ | VLR-I ³ | SF ³ | LSG ^{3,4} | Tdw-ISO ^{3,5} |
| Make-up mm ¹ | Standard Aluminium | Thermal Break Aluminium | uPVC | Timber | U Value Insulation value, lower is better | Visible Light Transmission Higher % means more daylight transmitted | External Reflectance Higher values mean more reflection seen | Internal Reflectance Lower the number the easier to see through the glass | Solar Factor (g) Lower number means less solar heat coming in | Selectivity Higher number means more natural light and less solar heat | Damaged Weighted Transmission Lower values mean better fading protection |
| 4-8-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.6 | 75% | 14% | 14% | 41% | 1.83 | 0.48 |
| 4-10-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.4 | 75% | 14% | 14% | 41% | 1.83 | 0.48 |
| 4-12-4 | | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.2 | 75% | 14% | 14% | 41% | 1.83 | 0.48 |
| 4-14-4 | Zones 1-6 Stage One | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.1 | 75% | 14% | 14% | 40% | 1.88 | 0.48 |
| 4-16-4 | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.0 | 75% | 14% | 14% | 40% | 1.88 | 0.48 |
| 4-18-4 | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.1 | 75% | 14% | 14% | 40% | 1.88 | 0.48 |

Low E SunX Grey SunX™ Grey - Ultimate solar control with tint for privacy

| | | | | | EN 673 | | EN410 | | | | |
|--|---------------------|-------------------------|---------------------|---------------------|--|--|---|--|--|---|---|
| Building Code Acceptable Solution H1/AS1 Schedule (see schedule notes) | | | | | Heat Loss & Condensation | Visibility | | | Heat Gain | | Fading |
| Window System Material Type by Climate Zone | | | | | Ug ² | VLT ³ | VLR-E ³ | VLR-I ³ | SF ³ | LSG ^{3,4} | Tdw-ISO ^{3,5} |
| Make-up mm ¹ | Standard Aluminium | Thermal Break Aluminium | uPVC | Timber | U Value Insulation value, lower is better | Visible Light Transmission Higher % means more daylight transmitted | External Reflectance Higher values mean more reflection seen | Internal Reflectance Lower the number the easier to see through the glass | Solar Factor (g) Lower number means less solar heat coming in | Selectivity Higher number means more natural light and less solar heat | Damaged Weighted Transmission Lower values mean better fading protection |
| 4-8-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.8 | 42% | 8% | 12% | 33% | 1.27 | 0.45 |
| 4-10-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.6 | 42% | 8% | 12% | 33% | 1.27 | 0.45 |
| 4-12-4 | | Zones 1-6 Stage One | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.4 | 42% | 8% | 12% | 32% | 1.31 | 0.45 |
| 4-14-4 | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.3 | 42% | 8% | 12% | 32% | 1.31 | 0.45 |
| 4-16-4 | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.3 | 42% | 8% | 12% | 32% | 1.31 | 0.45 |
| 4-18-4 | | Zones 3-4 Stage Two | Zones 5-6 Stage Two | Zones 5-6 Stage Two | 1.3 | 42% | 8% | 12% | 32% | 1.31 | 0.45 |



Why Metro Glass is the trusted choice for your glass solutions.

1/ Our track record

- We're the leading supplier of quality glass in New Zealand, with branches nationwide. For over 35 years we've been pioneers in keeping New Zealanders warm, safe and dry through better technology.
- We introduced Low E technology to New Zealand back in the early 1990's, when double glazing was seen as a luxury.

2/ 10 year warranty

- Your glass will be in place for a long time. We back our materials and craftsmanship with a 10 year warranty.

3/ Quality

- Our long-term success is thanks to our commitment to quality. From our stringent checking and testing of raw materials, to our state of the art processing, to providing expert technical advice, we make sure our products meet and beat rigorous industry standard of durability, safety and performance.

4/ Innovation

- We continuously invest in new technology and processes to enhance energy efficiency, aesthetics and functionality. SunX™ Grey solar control glass is our latest advance in that space.

5/ Sustainability

- Recycling: Over 99% of the waste glass from our plants is recycled, right here in New Zealand - going into products such as home insulation and bottles. In addition, the glass products we sell, contain an average of 22% recycled content.
- Declare Red List Free Certified: our double and triple glazing glass contains no toxic ingredients.
- Toitu Envirocare Carbon Reduce Certified: Metro Glass have measured and monitored carbon emissions, externally verified by Toitu, to ensure a decrease in our environmental impact over time.
- We independently audit our suppliers to ensure alignment on sustainability and corporate social responsibility practices.
- Environmental Product Declaration: EPD reports are available for all of the glass materials that make up our core products. They tell a product's life story from sourcing to gate, and their impact on the environment.

High performance
Low E double glazing
from New Zealand's
leading manufacturer.

If you're building or renovating, your windows are critical for creating a comfortable, light-filled and peaceful home. Talk to us today about how our Low E double glazing options can give you the perfect fit for your location and your home.

We've led the New Zealand glass industry with some of the biggest innovations for more than 35 years. When you choose Metro Glass you can be confident you are choosing the best quality and performance for your needs.

Call us 0800 545 800, or visit us at www.metroglass.co.nz

