# Glass and Glazing Solutions



# Glass for windows and doors

To many home owners glass is simply glass, so it is easy to overlook the importance of selecting the right type of glass for your new home or addition. However the reality is that few building decisions are more important than 'Which glass?'

Stegbar will help you select the most appropriate glass for your home, allowing you to balance the many challenges you will confront, such as how to maximise natural light while minimising summer heat and glare, and reducing the discomfort of winter cold. In addition, the right glass choice offers you solutions to improve security, build in safety, limit UV fading of furnishings, reduce noise levels, lower energy bills and virtually eliminate external window cleaning.

The glazing options recommended in this catalogue are those best suited for glazing in current Stegbar products. The recommendations are broad based and other factors such as climatic location, orientation of the dwelling and directional aspect of each particular window, must all be taken into account if the most appropriate glazing solution is to be found.



## Introduction to glass

### Float Glass

Float glass is produced by melting sand, soda-ash, limestone and dolomite in a furnace mixed with recycled glass and floating it onto a large bed of molten tin. This mixture slowly solidifies to a thickness controlled by the speed it is drawn over the molten tin. It is then annealed – control cooled – to ensure flatness. As both surfaces are fire finished, they need no polishing or grinding.

### Clear Float Glass

Clear float glass is transparent and colourless, offering high visible light transmittance. It therefore offers little resistance to solar heat gain and glare in buildings.

#### Toned Float Glass

Toned float glass is produced by adding a colourant, usually powdered oxides. It is primarily designed to reduce solar heat gain and glare, which from an occupant's point of view increases the comfort level and reduces cooling costs.

#### Low E Float Glass

Low E glass is a low reflective and highly transparent glass. It is specifically designed to reduce heat transfer in both warmer and cooler climates and thus reduce energy costs.

#### Laminated glass

Laminated glass is safety glass that has been manufactured by adhering two or more sheets of glass with a flexible interlayer. This interlayer, usually 0.38mm thick and manufactured from polyvinyl butyral (PVB), prevents the glass from disintegrating when broken.

#### Toughened glass

Toughened glass is produced by passing cut-to-size annealed float glass through a heat furnace. This process introduces stress into the glass and produces a glass 4–5 times stronger than ordinary float glass. Toughened glass can still be broken, however if this does happen it shatters into small fragments, minimising the risk of injury caused by glass splinters.

#### Insulating Glass Units (IGUs)

Insulating glass units (also referred to as double glazed units) consist of two panes of glass separated by a spacer around the edges and sealed to the perimeter in factory controlled conditions. The spacer contains a desiccant which eliminates moisture vapour in the cavity. Insulating glass units are available in many glass combinations.

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# Climate solutions – Summer comfort

### **Toned Float Glass**

### Description

Tone glass is an ideal way to simply and cost effectively minimise the extremes of an Australian summer. The colour (tone) of the glass acts like sunglasses against glare, helping to shade the inside of your home by reducing the amount of the sun's heat entering through the windows by up to 25–30%.

#### Features

Size Range – 4, 5, 6, 10, 12mm float glass which can be toughened for safety.

Solar Control Characteristics – The solar heat gain level for Tone glass is mid to low range thus allowing you to enjoy the view without the discomfort of summer heat.

Daylight Transmittance – Tone glass lets a good level of the sun's natural light into your home, reducing the need for artificial light.

Exterior Reflectance – Tone glass provides very minimal exterior daylight reflectance, making it the ideal glass where architectural designs or restrictions prohibit structures with high reflectance.

### 6.38mm Toned Laminate

#### Description

The performance of laminated safety glass can be varied by changing the number, thickness and type of each of the glasses and the PVB interlayer to give a wide choice of products offering exciting features and opportunities in aesthetics, sound and solar control.

The viscous nature of the interlayer helps to absorb traffic noise and special chemicals in it absorb a high percentage of ultraviolet and infra-red rays. The result is a quieter, safer, more comfortable environment inside the building.

### Features

Size Range – While 6.38mm is the most common domestic glazing option, other thicknesses are available.

Solar Control Characteristics – The combination of 6.38mm glass with the PVB interlayer provides a low level of solar heat gain, while dramatically reducing UV transmission.

Daylight Transmittance – Tone glass lets an impressive percentage of the sun's natural light into your home, greatly reducing the need for artificial light.

Exterior Reflectance – Tone glass provides minimal exterior daylight reflectance, making it the ideal glass where architectural designs or restrictions prohibit structures with high reflectance.



## Winter comfort

### Insulating Glass Units 3mm Clear–6mm Air Gap–3mm Clear

### Description

Insulating glass units are designed to provide high levels of thermal insulation and solar control with the added benefit of noise reduction in domestic applications.

A wide range of glass types and air gap widths can be combined for specific performance requirements.

### Features

Size Range – Any combination of glass with a 6 or 8mm air gap. For general use across the Stegbar range we recommend a maximum of 14mm combined thickness.

Solar Control Characteristics – This combination produces high solar heat gain and mid range U Value levels.

Daylight Transmittance – This IGU combination lets an impressive percentage of the sun's natural light into your home, reducing the need for artificial light.

Exterior Reflectance – Clear glass on the exterior of this IGU provides nominal daylight reflectance.

# All seasons comfort

### Low E Float Glass

### Description

Low E float glass is a revolutionary breakthrough in single glazing technology. It is an ideal solution for most homes in Australia in that it keeps the home cooler in summer and warmer in winter.

With a low U Value of 3.9, Low E is designed to offer high levels of thermal insulation and reduce solar transmission.

### Features

- Size range 6.38mm, 8.38mm and 10.38mm laminate
- Colours neutral, green, grey
- Laminated glass with Grade A safety rating
- Reduces fading of furnishings
- Reduced noise transmission

# Stegbar quality guarantee

All Stegbar products are covered by a straightforward, easy to understand guarantee that reflects the confidence with which Stegbar recommends our products to you.

Every Stegbar product has a specific guarantee that covers workmanship, performance and durability. Most Stegbar products are guaranteed for up to seven years.

And incidentally, isn't it comforting to realise that with over 50 years of success in the building industry, Stegbar will certainly be around to offer guaranteed service, spare parts and advice should you ever need it.







# **Energy solutions**

As homes are heavy users of energy, Australia has developed a new Building Code encouraging energy efficient design, so that new homes will need less artificial heating and cooling.

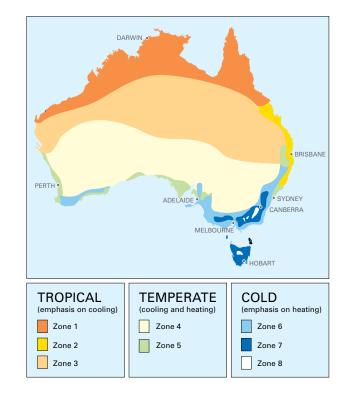
### The Building Code of Australia

Australia is a vast continent with a range of climates. The Building Code of Australia divides the country into eight climate zones, though in terms of energy efficiency these fall into three main categories: tropical, temperate and cold.

In each zone the energy efficiency requirements vary. However most areas have implemented a 'whole of house' rating. This means that it is the overall effect of all the building elements – site orientation, construction technique, building materials, insulation, window size and placement – that will determine the energy efficiency of your home.

Your designer or builder can use software packages such as NatHERS or FirstRate to explore different ways of using materials such as glass to meet energy efficiency requirements while maintaining good design principles.

In a tropical climate, the energy efficient solution is to keep the sun's rays out and the cool air in.



Energy efficiency in a temperate climate requires a home that can minimise the effects of the sun's heat during warmer periods, then insulate when it's cooler to reduce the need for heating.

In a cold climate the challenge is to insulate the home from the cold, while keeping warmth in, to reduce heavy energy use from heating.





### *Tropical-Temperate – single glaze*

Put sunglasses on your home with Tone glass in hot climates. Tone glass is the simple, economical way to make your home cooler in hot climates. The tone of the glass helps to shade the inside of your home. This can keep your home up to 10% cooler, reducing air conditioning and energy bills.

#### Australia-wide - laminated

Low E float glass is a high performance glass that provides greater comfort in all seasons. A special Low E coating means you enjoy insulation from both heat and cold. In winter it keeps over a third more heat inside than standard glass, so you stay cosier while enjoying uninterrupted views. In summer it works the other way, to halve the sun's direct heat entering through your windows, so you can save on air conditioning too.

### Cold – insulating glass units

The use of two pieces of glass separated by a sealed air space creates a highly effective insulation barrier that can stop cold and heat from entering or leaving your home depending on the combination of glass used.

# Everyday living solutions – Security

### **Stegbar Security Glass**

### Description

Stegbar security glass means that your home does not need to look like a fortress to be secure.

Stegbar security glass resists penetration (even when broken) better than any other glass you may use in your home.

A clear vinyl interlayer invisibly sandwiched between the two sheets of glass gives laminated glass its superior performance. Because it stretches and absorbs impact, this interlayer can only be penetrated after repeated blows to create a hole through which an intruder could put their arm without risking injury.

### Features

- Stegbar security glass provides extra resistance because its interlayer is four times thicker than normal laminated glass
- It takes up to twenty blows to penetrate Stegbar security glass
- Stegbar security glass is a safe alternative to intrusive security bars and grilles, yet allows quick emergency egress by simply opening the window
- Stegbar security glass is available in any Tone colour, thus offering both security and comfort.

# Safety

Chances are, there would be areas in any home where the installation of safety glass could provide added protection and peace of mind for the occupants.

Full height windows in family rooms, children's bedrooms and glass doors should all be upgraded with the right Grade A safety glass.





Grade 'A' Safety glass Laminated

Grade 'A' Safety glass Toughened

# Fading solutions

As well as damaging the skin, ultraviolet light can also be highly damaging to interior furnishings. Together with heat, UV rays can prematurely fade furnishings, ruining their appearance and potentially shortening their life.

To minimise fading, the desired glazing option is one that has the lowest practical UV transmission percentage.





## Acoustic solutions

Noise reduction refers to the amount of sound which is removed as it passes through a closed window or a wall.

All air gaps must be sealed off to ensure that a window will achieve the best noise reduction it can. Therefore it is not only the glazing options which must be considered but also the type of window.

Awning windows with a seal around the total perimeter of the sash are ideal, while a sliding window would be the worst option.

Sound Transmission Class (STC) is a single number rating for evaluating the efficiency of building elements in reducing transmission of noise. It is expressed in decibels (dB) and the larger the number, the greater the sound reduction achieved inside the building.

- Normally the human ear cannot detect a 1–2dB change.
- A 10dB increase is about half the original sound.
- A 10dB decrease is about twice the original sound.

### Typical Sounds

- 50dB average conversation.
- 70dB average street noise.
- 90dB noisy factory.

# Did you know that Stegbar...

- Is over 50 years old and famous for design innovation and quality?
- Has an excellent reputation in the building industry and is the name most usually specified by architects and builders for Australia's most prestigious homes and apartment buildings?
- Has product display centres all around the country, where you can see all the options and talk to our fully qualified consultants before you buy?
- Has our own highly trained and qualified tradesmen who are specialists in the installation of doors, windows, shutters, showerscreens and wardrobes?
- Ensures that all our products meet or exceed Australian Standards?



# Stegbar Installation Service

The Stegbar Installation Service is what we like to call our 'one stop shop.' Building or renovating your home can be one of the most stressful situations you will ever encounter.

That's because you don't do it every day – in fact you might only ever do it once or twice in your lifetime. Well at Stegbar, we do it every day – and that guarantees that you will get the best ideas, the best products, and the best service.

Our professional S.I.S team provides you with one stop peace of mind – from on-site consultation, to supply and installation – no fuss, no worries, no stress.









### *Timber Windows & Doors* The warmth and charm of cedar is unmatched. The Stegbar range of

unmatched. The Stegbar range of western red cedar windows and doors is available in standard and custom made sizes.



#### Mirrors

To complement Stegbar's elegant range of showerscreens, Stegbar offers coordinated mirrors to brighten and enhance your bathroom, or any room in your home.

#### Wardrobes

Every wardrobe can be designed and custom made to suit your storage needs and your décor. Available in a range of door styles and finishes.

#### Showerscreens

Stegbar has a showerscreen to suit any bathroom decor, including the safe and functional Softline Series; the truly innovative Grange Series; and the timeless luxury of a Frameless screen.

# Adding value to your home

No matter which Stegbar products you choose, you will find they all share one vital ingredient – 'Stegbar products add value to your home.' The Stegbar name is renowned for fine craftsmanship, innovation and long life durability. Through a commitment to real customer satisfaction and product quality, Stegbar will continue to be the wisest investment you can make in your home.

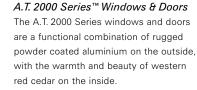
Stay up-to-date with the latest trends, product details and pricing information via our website **stegbar.com.au** your complete, online home renovating resource. It's sure to give you many ideas on improving the look, as well as the value of your home.



*Aluminium Windows & Doors* Aluminium's combination of strength and lightness makes Stegbar windows and doors neat and unobtrusive. Available in standard and custom made sizes.









*Timber Entry Doors* A gracious and distinctively designed door creates a lasting impression. Stegbar hand crafted cedar doors are a statement of class and distinction.



*ComfortPac™ Glass Options* Improve safety and security, reduce

noise, control climate and protect furnishings with ComfortPac upgrade options – the easy way to order glass.

### Splashbacks

Stegbar splashbacks are a brilliant alternative to tiles in kitchens and bathrooms and are infinitely easier to keep looking like new.



### Stegbar Installation Service

Starting with a no fuss consultation, measure and quote, the expert Stegbar Installation Service will help transform your home.



# There's a Stegbar Display Centre near you

### New South Wales

*Albury* 288 Townsend Street, Albury 2640

*Batemans Bay* Unit 2, 5 Cranebrooke Road Batemans Bay 2536

*Chatswood* 122-126 Victoria Avenue, Chatswood 2067

Erina

Information and Selection Centre Shop 2, 208-210 The Entrance Road, Erina 2250

*Lansvale* 84-98 Hume Highway, Lansvale 2166

*Lismore* 558 Ballina Road, Goonellabah 2480

Moorebank Showerscreens and Wardrobes 3 Moorebank Avenue, Moorebank 2170

*Newcastle* 14 Northcott Drive, Kotara 2289

*Taren Point* 3/181 Taren Point Road, Taren Point 2229

*Wollongong* 259 Keira Street, Wollongong 2500

### Victoria

*Airport West* 91 Matthews Avenue, Airport West 3042

*Ballarat* 40 Mair Street, Ballarat 3355

*Bendigo* 4 Contempo Court, Bendigo 3550

*Geelong* 137B Fyans Street, Geelong 3220

*Rowville* 949 Stud Road, Rowville 3178

*Shepparton* 81 Benalla Road, Shepparton 3630

### Tasmania

Launceston Home Ideas Centre Windows and doors on display only 262 York Street, Launceston 7250

### Queensland

*Bundall* 2/101 Ashmore Road, Bundall 4217

*Hervey Bay* 37 Main Street, Pialba 4655

*Kedron* 200 Gympie Road, Kedron 4031

*Maroochydore* 110 Sugar Road, Maroochydore 4558

Stones Corner Information and Selection Centre 76 Old Cleveland Road, Stones Corner 4120

*Toowoomba* Homemaker Centre 7/12 Prescott Street, Toowoomba 4350

### ACT Region

*Fyshwick* Home Ideas Centre 28 Collie Street, Fyshwick 2609

### South Australia

*Pooraka* 20-24 Williams Circuit, Pooraka 5095

Unley 119 Unley Road, Unley 5061

### Western Australia

*Booragoon* 3/491 Marmion Street, Booragoon 6154

*Wangara* 66 Prindiville Drive Corner Hartman Drive, Wangara 6065

For further information freecall

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