

Security Glass



Observa™
AssualtGuard™
AssualtGuard™ Ultra
JailGuard™



The Viridian Glass range of security glass ensures added protection to the people and products you care about.

Viridian[™]
Glass

Security glass solutions for every situation

Security for all threat levels

Whether it's a house window, a shopfront or a security facility, Viridian has a security glass solution which delivers the benefits of daylight and transparency with the peace of mind of security – *All Day, Every Day*.

Structural Strength

Viridian Security Glass comprises of multiple layers of glass and special interlayer, used for durability and resistance to attack. The thickness and type of interlayer provides resistance to penetration. The interlayer may be thick PVB or a special ionoplast or polycarbonate interlayer for strength.

Design options

Security glass can be configured to include solar and thermal control, self-cleaning glass, decorative glass and Viridian Observa one-way vision glass. Talk to your Viridian Glass expert to provide you with the perfect combination.



- Protects your staff



- Stands up to rigorous testing



- Deters 'smash & grab' burglaries
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Observa™ Glass

The security advantages are all one-way



Viridian Observa™

Description

Viridian Observa is an observation mirror offering high quality one-way vision that effectively provides discreet, unobtrusive monitoring. It has the appearance of a mirror on the subject side, while providing privacy for observers.

Installation

Observa is normally used for internal applications. Glazing should be in accordance with the New Zealand Standard NZS4223.

The reflective surface must be installed to the subject side.

Lighting conditions

To achieve privacy for observers, a light ratio of 1:7 is recommended, where the subject side is brightly illuminated and the observer side is dimly lit. Bright lighting sources must be avoided in the observer's area and spotlights directed away from the Observa surface. We recommend using dark furnishing colours and for dark clothing to be worn in the observation area.

Note: For external applications and natural lighting situations where variable lighting conditions exist, the Observa performance can be affected.

Benefits

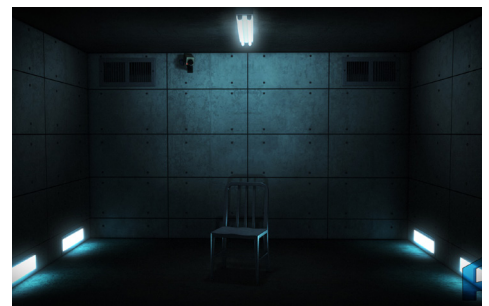
- A safe and effective observation mirror for discreet monitoring
- Appearance of a mirror
- Allows light flow from subject area to observer area



○ Unobtrusive monitoring



○ High quality one-way vision



○ Achieves privacy for observers

IntruderGuard™ / AssaultGuard™ Glass

Protection for people and property

Viridian IntruderGuard™ (Residential use)

Viridian IntruderGuard is a security glass for residential buildings and specialised commercial applications.

Description

IntruderGuard looks like normal glass yet provides a barrier to forced entry that is 20 times harder to break through than standard float glass and it achieves this without making a building look like a fortress. IntruderGuard is specifically developed to offer a resilient and enduring barrier for vulnerable entry points across a broad range of applications.

IntruderGuard is a 7.52mm laminated glass and provides extra resistance to penetration because its interlayer is four times thicker than normal laminated glass.

Applications

Residential windows such as door panes and sidelights or low level windows which are potential targets for break-ins.

Features and benefits

- Improved resistance to penetration upon breakage – safer for families.
- Reduced fading of furnishings by absorbing 99% of UV radiation.
- Reduced noise compared to standard glass.
- Gives peace-of-mind your home is protected from weather if windows break while vacant.
- IntruderGuard should be incorporated with window frames and locks of sufficient strength.
- Available in clear, ex-stock. Can also be supplied as tint, reflective, frosted, Low-E, obscure and Observa.

Viridian AssaultGuard™ (Commercial use)

The range of Viridian AssaultGuard glass is an economical method of providing a barrier to forced entry while providing transparency and clarity.

AssaultGuard incorporates interlayer four times the thickness of those manufactured in standard laminates and is designed to resist attack from a variety of hand tools used for forced entry such as hammers, crowbars and wood splitters.

AssaultGuard is typically used in commercial applications like shopfronts, windows and doorways susceptible to break in. It is also used in risk applications such as pay booths, jewellery and display counters to provide substantial resistance against 'smash and grab' theft.

Applications

Ideal for partitions and internal office walls, e.g. within the Finance industry and Government facilities and wherever there is potential risk of hostility or violence.

Features and benefits

- Resists penetration and forced entry – glass may break but interlayer retains integrity and continues to act as barrier.
 - Withstands repeated blows from heavy objects such as bricks, hammers and crowbars.
 - Provides UV protection, noise reduction and is a Grade A safety glass to AS/NZS2208.
 - Consider incorporating Viridian SuperClear to enhance the high light transmission often required in retail applications.
 - Available in clear, ex-stock. Can also be supplied as tint, reflective, frosted, Low-E, obscure and Observa.
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AssaultGuard Ultra™ Glass

The security advantages are all one-way



Viridian AssaultGuard Ultra™

Viridian AssaultGuard Ultra is a specialty glass primarily developed for use in facilities such as police stations, juvenile justice and mental health facilities. Products within the AssaultGuard Ultra range are designed to withstand a variety of attacks.

This product is a composition of thermally toughened glass (VTough) and a specialised interlayer. It has demonstrated a strong resilience to concentrated attacks. Viridian JailGuard can be used if maximum security is required.

AssaultGuard Ultra products are manufactured using a variety of glass types and thicknesses combined with specialised security interlayer. (* Spall films can be applied post installation to non-Low E coated glass products).

Additionally, if stringent energy efficiency requirements are specified, AssaultGuard Ultra can be supplied in a range of tint, obscure and Low-E combinations or combined with our ThermoTech™ Insulated Glass Unit (IGU) range.

Viridian AssaultGuard Ultra 10 – Minimum Security Glass

AssaultGuard Ultra 10 is the base product in the range and ideal for use in low to medium risk facilities, such as observation or holding cells, police station detention areas, mental health institutes, banks, high-risk display cases (museums, art galleries, etc) and pay offices.

Viridian AssaultGuard Ultra 12 – Medium Security Glass

AssaultGuard Ultra 12 is the mid-range product in the range.

It is typically used in medium to high risk areas in facilities such as juvenile justice centres, remand centres, high risk police detention areas and mental health facilities.

Viridian AssaultGuard Ultra 14 – Premium Security Glass

AssaultGuard Ultra 14 is the highest performing product in the range.

It is specifically designed for applications requiring client observation where excellent integrity of product is required. This maximum security glass is typically used in maximum risk areas in facilities such as juvenile justice centres, remand centres and acute or forensic mental health facilities.

* Glass spall is the debris caused by glass breaking into many small fragments and impelled in the same direction as the impact.

Product Range							
		Clear	Neutral	Green	Super Green	Grey	Maximum Size
Non-Coated Range	AssaultGuard Ultra 10	◆		◆	◆	◆	2440 x 1220
	AssaultGuard Ultra 12	◆		◆	◆	◆	2440 x 1220
	AssaultGuard Ultra 14	◆		◆	◆	◆	3650 x 2130
Low-E Coated Range	AssaultGuard Ultra 10 Low-E	◆	◆	◆	◆	◆	2000 x 1000
	AssaultGuard Ultra 12 Low-E	◆	◆	◆	◆	◆	2440 x 1220
	AssaultGuard Ultra 14 Low-E	◆	◆	◆	◆	◆	3500 x 2130

Features and benefits

- Conforms to AS/NZ2208 for safety glazing material.
- May be specified in a range of single and double glazed configurations.
- Can be used for both internal and external applications.
- Blocks 99% of unwanted UV (Ultra Violet) light.

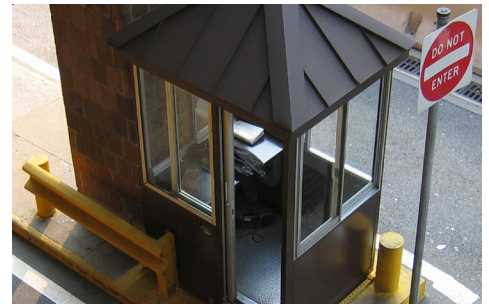
JailGuard™ Glass

Maximum security meets maximum safety

Viridian JailGuard™ (Maximum security)

Viridian JailGuard is a specialised security glass primarily geared for use in correctional facilities such as police stations, remand centres, juvenile justice facilities and jails. Products within the JailGuard range are designed to withstand a variety of attacks from hand tools and typical implements such as brooms, mop buckets, billiard balls and other objects found within correctional institutes. Simulated attack conditions using axes, wood splitters, crowbars and other hand tools have shown products within the JailGuard range capable of resisting penetration for extended periods.

JailGuard products are manufactured using a variety of glass types and thicknesses combined with high-end security interlayer. JailGuard can also incorporate low spill films if required.



○ Designed for correctional facilities



○ Ideal for kiosk or teller security

Features and benefits

- JailGuard is tested to HPW-TP-0500.02 and .03 and Opus (NZ) specification can be organised to be tested to specific requirements.
- Conforms to AS/NZS2208 for safety glazing material.
- May be specified in a choice of configurations – clear, tint and Observa.
- Can be used for both internal and external applications.



○ Combines clarity with security

Security Glass Guide



Security	Product Names	Exact Thickness	Maximum Glass Sheet Sizes	Outer Glass Surface	Tested to AS3555.1 Level 1	Result Under AS3555.1 Level 1	Test Size Under AS3555.1 Level 1	Intended Use
Low	Laminate	Various	2440 x 3660	Annealed	No - not relevant			Will only withstand relatively low impact. The advantage is glass holds together when broken therefore preventing the entry of weather. Great for windows in holiday homes where a broken window may be left for longer periods.
Low	Toughened	Various	2400 x 3660	Toughened	No - not relevant			Approximately 5 x stronger than the same thickness of annealed glass. Suitable in situations with a higher risk of impact - will usually withstand a blow from a blunt object of moderate force. Used where someone may mistake the glass as an open door and also good where sports balls are frequently used.
Moderate	Triplex Security	15.6		Annealed	Yes - Level 1	< 1 minute	1100mm x 1100mm	Originally developed for use in Prison Door vision panels before the implementation of AS3555.1. Now superseded by JailGuard and to be made obsolete.
Moderate	Intruder-Guard	7.52	2440 x 3660	Annealed	No - not relevant			Residential windows where it is more likely someone may attempt to break in, such as door sidelights or windows subject to opportunist vandalism with blunt instruments such as bats, etc. IntruderGuard will break but will hold together to remain secure.
Low	AssaultGuard	11.52	2440 x 3660	Annealed	Yes - Level 1	< 1 minute	1100mm x 1100mm	Commercial Shopfronts, Office Partitions and Display Cabinets in low risk situations. Protecting low to medium value items. Slows the access of opportunist burglary or vandalism using blunt instruments. AssaultGuard will break but will hold together to remain secure.
Medium	AssaultGuard Ultra	10.28	2140 x 3660	Toughened	In Test			Developed initially for use in Mental Health Institutions to protect occupants from self harm and keep them secure while providing an environment that doesn't resemble a jail. The product is available in varying thicknesses to provide increasing levels of attack time. Also suitable for a higher degree of security in Retail Shopfronts or Display Cabinets where items of a higher value are displayed and Internal Partitions or Security screens where a longer period of attack is expected.
Medium	AssaultGuard Ultra	12.28	2140 x 3660	Toughened	In Test			
Medium	AssaultGuard Ultra	14.28	2140 x 3660	Toughened	In Test			
High	JailGuard 10	16.84	2140 x 3660	Toughened	Yes - Level 2	10 Minutes	1100mm x 1100mm	Suitable for windows in Remand Prisons and Minimum through to Maximum Security Prison Windows. Can also be specified for Police Cell Windows. We recommend a security review is undertaken to determine the length of time a window could be subjected to under attack, and select the glass type accordingly. Frame design requirements to be followed. Test reports and video of test attack are available.
High	JailGuard 20	21.84	2140 x 3660	Toughened	Yes - Level 2	20 Minutes	1100mm x 1100mm	
High	JailGuard 30	22.12	2140 x 3660	Toughened	Yes - Level 2	30 Minutes	1100mm x 1100mm	

Product Key



Energy



Noise



Fire Protection



Structural



Bathroom



Security



Decorative



Storm



Knowledge



Clear Vision

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Visit www.viridianglass.co.nz to find out more about Euroglass products.