Community Living
Capral Aluminium are proud to be experts in creating glazing solutions for the building industry. We don’t merely design windows and doors but strive to create products that integrate into the building design. We provide solutions to problems. Our products blend seamlessly into the aesthetic of any project and we focus not only on cost but the value that Capral and our products add to any project.

The Capral Community Living brochure intends to demystify the different elements of the building code and disability standards as they relate to glazing systems, as well as covering other aspects of glazing applicable to a community living environment such as acoustics and energy.

Our extensive selection of door, window and framing systems offer a great range of functionality and choice meeting an extremely diverse range of aspects in community living environments – be they independent residential living through to high care secure accommodation.

We hope this brochure provides ideas and provokes inspiration for your next Community Living project. For more information about our products or to discuss in more detail any of these topics, don’t hesitate to visit our website or local specification representatives.
At Capral Aluminium, we use the term Community Living to describe communities that are designed to house, support or care for persons that are affected by age, health or disability, or are simply looking to slow down in their latter years of life.

The common factors across these communities for Capral Aluminium are the common need for solutions that enable accessibility, comfort and safety.

Examples of these communities would be retirement and residential, low care villages or high and special care facilities. However, more often we are seeing the requirement for longer term community solutions where residents and family can be housed through all of these stages from a single location.

Having the most extensive range of building systems solutions in the Australian market, Capral is uniquely placed to be able to provide not only the products for every aspect of the community, but also the expertise to be able to provide constructive input on your next project.

This concept intends to pull some of that knowledge together into a single document that not only identifies the issues, but also provides constructive solutions.
Capral Building Systems
solutions for community living

The Capral Sustainability Statement

Capral is committed to developing products that deliver positive environmental outcomes. The many facets of our operations help us achieve this goal:

Aluminium - The Super Metal
Aluminium boasts one of the highest recycling rates of any metal. At the end of their long life, Capral aluminium extrusions can be readily recycled.

Coatings and Finishes
Capral uses and recommends powder coatings containing no organic solvents or heavy metal pigments such as lead.

Energy Efficient Window and Door Systems
During their ‘use phase’, high performance aluminium window and door systems can deliver significant reductions in energy required for heating and cooling. The energy saved by using high performance window and door systems can be many hundreds of times greater than that consumed to produce the original aluminium extrusions.

Australian Supply Chain
As a local manufacturer, Capral is required to meet Australian environmental regulations and standards in its manufacturing and finishing operations. Understanding the full life cycle impact of products requires manufacturing processes and materials to be traced back to their source. When materials are sourced from overseas, it can be difficult to know whether they have been produced in an environmentally responsible way.

National Manufacturing Footprint
Capral’s national manufacturing footprint allows our extrusions to be produced close to where they are required. This helps avoid unnecessary sea and road freighting, reducing carbon dioxide emissions.
Who is Capral Aluminium and what do we offer?

Capral Aluminium is Australia’s largest manufacturer and distributor of aluminium products, with a history spanning over 78 years. We design and extrude aluminium solutions for both internal and external use in the home, with an enviable reputation for quality, style and performance.

Capral Aluminium is proud to offer an extensive range of systems made in Australia, designed and tested to fulfil every need of today’s living requirements. Our window and door systems allow light, space and thermal comfort to be at the forefront of every building’s design.

In addition to a standard range of aluminium window and doors traditionally available to the Australian market, Capral has developed a high performance range of architectural glazing systems to cater for contemporary trends whilst providing sustainable, energy efficient facade solutions.

Capral Aluminium Heritage

Capral Aluminium has been investing in the Australian industry and Australian jobs for over 78 years. We understand the Australian market and its environmental conditions and this has made us Australia’s leading designer, extruder and distributor of building systems and home solutions.

Capral Aluminium Heritage

R&D and Product Testing

Capral Aluminium maintains an in-house team of designers and engineers that represents the most experienced product development group in the industry. This capability combined with our NATA accredited test facilities means Capral building system products are subjected to rigorous testing to ensure they meet and exceed structural, weather and operational performance requirements.

Manufacturing Footprint

Capral Aluminium’s manufacturing footprint includes the largest extrusion facility in the Southern Hemisphere at our Bundamba operation in Queensland. Extrusion manufacturing facilities are also located in Victoria, New South Wales, South Australia and Western Australia, supplying world class products.

Distribution Network

Our extensive metropolitan and regional distribution network services a wide range of industries including residential and commercial construction, transport, marine and general engineering. Regional distribution centres support a network of conveniently located trade centres.

Australian Supply Chain

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Fabrication Partners

Capral Aluminium supplies a network of independently owned fabricators with extensive experience in the fabrication and installation of Capral building system products. These fabricators operate in both metropolitan and regional locations throughout Australia.
Designing for Accessibility

One of the critical aspects of designing today’s buildings means ensuring the design encompasses accessibility for all – be they able-bodied or with a disability.

‘Provide safe, equitable and dignified access to buildings, facilities and services within buildings.’

It is about ensuring that people with a disability can use buildings independently and with dignity. The functionality of the glazing systems can have a large impact on enabling this.

The NCC and Performance Requirements

Volumes One and Two of the National Construction Code are mandatory codes governing the design and construction of new buildings, as well as additions and alterations to existing buildings.

Volume One calls up performance requirements relating to accessibility for commercial buildings Class 2 through Class 9, while Volume Two relates to residential buildings Class 1 and Class 10.

This document has been based upon the requirements for commercial buildings.

Continuous Path of Travel

At the root of accessibility is providing a continuous path of travel. Access is generally required to all parts of the building used by the occupants including customers, visitors or staff.

There are a number of requirements in the NCC but not all of the technical detail is actually contained in the NCC itself but rather refers to other documents such as Australian Standards. The key reference when dealing with disability access is AS1428.1 (Design for access and mobility) and it is from this document that the majority of accessibility issues raised in this document are sourced from.
Providing for accessibility through sensible door and doorway design is a crucial element of an accessible building. By knowing exactly what the issues are and the solutions to resolve them (and while there are a number of aspects to be aware of) this can be a simple design element if considered early during the design process.

Doorways, Doors and Circulation Spaces

Door Thresholds

As doorways have a number of other requirements other than a means of access it is an important aspect to consider in the design of a building.

Probably the most important aspect of a doorway would be that while it provides access to a building, this means it breaks the fabric of the building and must therefore have a level of water protection when closed.

**Challenge**

To reduce the risk of the door threshold being a trip hazard there are limitations to the length and slope of the door threshold. Capral Aluminium provides threshold solutions that meet the AS1428.1 standard.

Keeping water out of a building is still a requirement of the NCC. Capral Aluminium offers options where a AS1428 compliant threshold can be used and still protect the building from water ingress.

**Solution**

Designing the building with adequate shelter from weather and water ingress such as with large overhangs or eaves above the doorways, this will negate the requirement for a threshold.

**Solution**

Ramped Thresholds

Ramped thresholds are typically used with hinge and pivot doors. These thresholds provide a compliant (less than 1 in 8 gradient) transition from outside to inside a building. These thresholds provide minimal water protection and typically do not have a water rating. They would therefore need to be used in conjunction with some type of water protection such as a large overhang, eave or plant on seal.

**Solution**

Linear Drains

Typically used with sliding doors, Linear Drains offer a very good threshold solution as they can provide a flat threshold while still achieving the water protection of the door system. As door systems drain the water to the outside of the building at the sill, the linear drain can be positioned on the outside of the door to capture that water while not impacting the designed water performance of the door system.

**Threshold Ramp Requirements**

Reference AS1428.1, Section 10.5

Thresholds at doorways on a continuous path of travel shall:

- Have a maximum rise of 35mm;
- Have a maximum length of 280mm;
- Have a maximum gradient of 1:8; and
- Be located within 20mm of the door leaf which it serves.

The edges of the threshold ramp shall be tapered or splayed at a minimum of 45° where the ramp does not abut a wall.

![Threshold Ramp Example](image-url)
Door Openings

Another important aspect is to be able to safely negotiate through the doorway. AS1428.1, Section 13.2 defines the minimum clear opening of doorways required in a continuous path of travel.

It is important to note that the clearances are not simply the frame-to-frame dimension, but rather the clear opening including door and door stops. This may mean the actual door is over 900mm wide to achieve the minimum clear opening width of 850mm.

**CHALLENGE**

To ensure accessibility through doorways, a clear opening greater than 850mm must be used. Depending upon the type of door, this may require a larger overall door frame.

**SOLUTION**

For hinge doors, ensure the product specified has a minimum panel width no less than 900mm as the width of the stile and the doorstop need to be added to the frame-to-frame dimension.

For Cavity and Surface-mount Sliding Doors, ensure the clearance between the end of the door panel, when open, and either the doorstop or door frame is > 850mm.

**DOOR OPENING REQUIREMENTS: AS1428.1, Section 13.2**

- Minimum clear opening shall be 850mm
- Measured from face of opened door to doorstop
- Where double doors are used, the minimum opening shall apply to the active leaf

**Door Circulation**

Ensure the doorway has a clear circulation area around it to allow for access not only by able-bodied people but also those with disability such as in a wheelchair. AS1428.1, Section 13.3 defines the amount of circulation space required around doorways, in a continuous path of travel. There are different requirements depending upon door type (i.e. hinge or sliding) as well as direction of approach but it can be up to 1700mm of circulation space, so is an important factor to get right early in the design.

**CHALLENGE**

To ensure the ability to access doorways, minimum clear circulation areas must be allowed for.

**SOLUTION**

Design the doorway area to meet the appropriate door clearance requirements in AS1428.1 depending upon door type, orientation and approach. Contact Capral to discuss your specific requirements.

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For hinge doors - opening away from user:

For hinge doors - opening towards user:

For sliding doors:

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Luminance Contrast

The use of luminance contrast is very helpful in assisting people with low vision to locate important aspects of a building such as signs, doorways, handrails, etc. Contrast can also be used to highlight potential hazards such as the edges of steps.

It is important to note that luminance contrast is different to colour contrast. Luminance contrast refers to the difference in reflected light of two adjacent surfaces which can be distinguished more readily by people with low vision.

**CHALLENGE**

Provide a luminance contrast to the doorway in such a way that it highlights to those with low vision that there is a doorway present.

**SOLUTION**

Discuss luminance contrast options with your finish specifier who should be able to provide suitable options. Specifying areas of contrasting luminance in your specification ensures this important aspect of the standard is complied with.

**LUMINANCE CONTRAST**

Reference AS1428.1, Section 13.1

All doorways shall have a luminance contrast of 30% provided between:

- Door leaf and door jamb;
- Door leaf and adjacent wall;
- Architrave and wall;
- Door leaf and architrave or;
- Door jamb and adjacent wall.

The minimum width of the area of luminance contrast shall be 50mm.

Visual Indicators on Glazing

The application of visual indicators to fully glazed doors and sidelights is to inform all members of the community of the presence of the fully glazed panels in their path of travel. Even for people with good vision, glass doors and windows can be difficult to see.

If a chair rail, handrail or transom is not fitted to the glazing panels, then permanent markings need to be applied to the full width of each glazing panel.

**CHALLENGE**

Fit visual indicators to fully glazed doors and sidelights to highlight the presence of glazed panels in a path of travel.

**SOLUTION**

Specify either the installation of chair rails or transoms, or alternatively the use of visual indicators on the glazing. These could be a simple pattern, solid band or include a repeated logo or image in accordance with the requirements described below.

**VISUAL INDICATORS ON GLAZING:** Reference AS1428.1, Section 6.6

Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening:

- Shall be clearly marked for their full width with a solid and non-transparent contrasting line;
- Shall be no less than 75mm wide and extend across the full width of the glazing panel;
- Lower edge of the contrasting line shall be between 900mm and 1000mm above the floor and;
- Shall provide a minimum luminance contrast of 30%

For buildings where AS1428.1 is not required to be met such as houses, then the manifestation requirements from AS1288:2006 should be applied. These are slightly different from the above requirements:

- Marking must be in the form of an opaque band not less than 20mm in height;
- Upper edge not less than 700mm above the floor and the lower edge not more than 1200mm above the floor;
- A broken line or patterns may be acceptable;
- Making the glass visible is not a substitute for the use of safety glazing.

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**Fixed glazing Sliding Door Fixed glazing**

- 75mm minimum
- 900 - 1000mm above floor
- 30% luminance contrast
Door Controls

Being able to open or close a door is an expectation for most of us, yet for a significant number of people this can prove extremely difficult. This is primarily due to hand or arm impairments that hinder the ability to effectively operate a door mechanism.

For this reason, handle selection and operation is very important and in some cases automatic door openers are the best answer. However in others, sensible selection and placement of door handles can be the most appropriate solution.

CHALLENGE

Provide a method of opening doors that meets the requirements of people who may have difficulties opening a door due to hand, arm or mobility impairments.

SOLUTION

The preferred type of door handles are the “D” type handles for both hinge and sliding doors.

Where the force of the specified door exceeds the requirements in the standard, consider the use of automatic door openers.

DOOR HANDLE POSITIONS

- 150mm from jamb or doorstop in open or closed position
- 900mm ± 50mm
- 950mm ± 75mm
- 1000mm ± 100mm
- and not less than 500mm from an internal corner
- 500mm ± 25mm
- > 60mm from jamb or doorstop when closed or open

Door Controls

Reference AS1428.1, Section 13.5

Door controls in or forming part of the continuous path of travel shall comply with the following:

Design and performance:
- The door handle and related hardware shall allow the door to be unlocked and opened with one hand.
- The handle shall be such that the hand of a person who cannot grip will not slip during the operation of the latch.
- The clearance between handle and back plate or door face at centre grip of handle shall be between 35mm and 45mm.
- D-type handles shall be provided on sliding doors.
- Where snibs are installed, they shall have a lever handle of a minimum 45mm long.
- Maximum force required to operate door where a door closer is fitted:
  - Initially open the door = 20N
  - Swing or slide the door = 20N
  - Hold the door open = 20N
- Where an outward opening door is not self-closing, a horizontal handrail or pull bar shall be fixed on the closing face of a side hung door.

Location:

Except where the location of the opening and locking controls are prescribed by the relevant statutory authority such as swimming pools, the location of controls shall be above a level surface and as follows:
- Controls that need to be grasped or turned shall be between 900mm and 1100mm above the floor.
- Controls that only need to be pushed shall be between 900mm and 1200mm above the floor.
- Controls that only need to be touched shall be between 900mm and 1250mm above the floor and not less than 500mm from an internal corner.
- Handles on sliding doors shall not be less than 60mm from the door jamb or doorstop when closed or open.
- Manual controls for power operated doors on the continuous path of travel shall be located no closer than 500mm from an internal corner and between 1000mm to 2000mm from the door leaf.

Power-operated door controls:
- Push button controls shall have a minimum dimension of 22mm diameter and be proud of the surface and shall activate the door before the button becomes level with the surrounding surface.

D’ type lever handle for Hinge Doors

D’ type handle for Sliding Doors
Energy efficiency through smarter thinking

Energy efficient windows and doors can make a real difference in the comfort of the living environment. The better designed the building, the less reliance on artificial heating and cooling thereby minimising the building’s energy usage or running costs.

Simple things like building orientation take advantage of available sunlight and selecting energy efficient windows and doors can make a real difference.

Passive Design is the term given to the design of buildings that have little, if any, need for artificial cooling and heating. Through the use of clever design principles, the building takes advantage of the natural climate to maintain thermal comfort. Passive design principles can be applied throughout Australia’s different climate zones.

A building with a Passive Design provides a more comfortable living environment and results in decreased energy costs to heat and cool due to improved energy efficiency. In doing so, this helps the environment through decreasing greenhouse gas emissions related to artificial heating and cooling.

Passive design checklist

The following checklist provides a sound starting point for considering how best to maximise energy efficiency by utilising passive design principles.

1. The main living and communal areas are oriented north to maximise winter sun and minimise summer sun.
2. Rooms are zoned or grouped and divided as needed for economical heating and cooling.
3. Eaves or other shading devices have been incorporated to provide shading from summer sun and allow winter sun to enter.
4. Windows and doors are located to get good natural cross ventilation and to ventilate bathrooms and wet areas.
5. Windows are located appropriately and glass selections made that provide natural daylight and winter sun penetration, while avoiding summer overheating.
6. Windows have been utilised to improve energy efficiency, by making use of the large range of high performance energy efficient glazing products available.
7. Maximum insulation has been provided in the roof, walls and floor.
8. There is appropriately designed thermal mass internally to moderate indoor air temperatures.
9. Draughts and air leakages have been adequately sealed.
Smart windows and doors

Thermal Mass
Thermal mass describes the ability of building materials to store heat. Thermal mass is used to store heat from the sun during the day and re-release it when required. Adding thermal mass helps reduce extreme temperatures, making the average temperature more moderate all year-round. Consequently, occupant comfort levels are increased and energy costs are reduced. Heavyweight building materials store a lot of heat so are said to have high thermal mass, whereas lightweight materials do not store much heat and therefore have low thermal mass. As a rule of thumb, the greater the daily temperature range, the more thermal mass required.

Glazing
Window and door glazing are a critical element of passive design as up to 49% of heat loss and 87% of heat gain occurs through windows with 3mm single glazing. Passive Design takes advantage of this by keeping winter heat indoors and excluding excessive summer heat from entering the building. Appropriate placement of windows and doors is another important consideration as well as minimising reliance on artificial heating and cooling, windows aid ventilation and importantly, a healthy living environment.

Single glazed high performance glass can stop up to 40% of solar heat gain while Low E double glazing can stop up to 77% of solar heat gain, which equates to a financial saving of approximately 40% off energy bills to heat and cool. Specifying high performance glazing can add as little as 1% to the total building cost.

Orientation
Optimal positioning of a building on its site can have a significant impact on its thermal performance. During winter the most sunlight enters a building through north facing windows and doors.

Layout
Areas that are used for relatively short periods of time such as bathrooms, laundries and garages are best positioned on the west to provide a buffer against the extreme summer heat. To enjoy the maximum benefits of solar heat, position rooms that generally require heating, such as living areas, on the north side.

Insulation
Whether it be the roof, walls, doors or windows, it is imperative that premium insulation is achieved and that all gaps are filled to keep wanted air in and unwanted air out. Using high performance windows and doors provides superior insulation when combined with other insulation materials. This reduces the amount of artificial heating and cooling needed to maintain thermal comfort, which in turn means smaller heating and cooling units and decreased running costs.

Ventilation
Well placed windows and doors can capture cooling breezes for optimal ventilation. Trees and other external objects can be used to direct breezes through a building. Some window types, such as casement windows and louvres, are particularly useful in controlling breezes for maximum benefit.

Shading
Preventing summer sun from directly hitting windows is one of the most effective ways to reduce summer heat from negatively impacting on thermal performance. Shading can be achieved through appropriately sized and positioned eaves or by other means such as verandas, trees and outdoor blinds. As the winter sun enters at a lower angle than summer sun, by using effective shading you can guard the same areas from heat gain in summer.

The Window Energy Rating Scheme
The Window Energy Rating Scheme (WERS) is managed by the Australian Window Association. It provides a system for rating and comparing the energy performance of windows and doors against one another, in a similar fashion to the rating system commonly used for white goods. To participate in WERS, window fabricators must obtain energy ratings for their products from a rating organisation accredited by the Australian Fenestration Rating Council (AFRC) and rated windows must meet all relevant standards.

In order to determine window performance data, WERS uses a window’s U Value and Solar Heat Gain Coefficient. In simple terms, the U Value is a measure of the rate of heat transfer through a window. The lower the U Value, the better the level of insulation the window provides. The Solar Heat Gain Coefficient is a measure of how much solar radiation passes through the window. In cooler climates, windows and doors which transmit a greater amount of solar radiation can help to provide free solar heating.
Acoustics

Noise pollution is increasing as development spreads and densities increase, particularly in urban areas. Acoustics is the physics that deals with the production, control, transmission, reception, and effects of sound and is an important aspect of building design, particularly in community living projects where noise pollution can adversely impact comfort and wellbeing.

Acoustics is a consideration for any building project and it is recommended that an Acoustic Consultant is engaged when noise pollution is an important aspect of the building design. However, there are some general issues and considerations outlined below to provide some general guidance on the subject of Acoustics and how it applies to glazing.

Window and Doors Types

Windows and door types are typically selected for functional reasons as opposed to acoustic qualities but some window and door types perform better than others.

- Fixed glazing is the most superior configuration as there are no moving parts or seals that allow sound to escape past.
- Awning windows and hinge doors are good performing operable options as the hardware pulls the sash onto the seals when closed.
- Sliding products are typically the worst performing acoustically due to the sashes sliding along the seals, as opposed to a compressed seal.

Installation and Sealing

The correct installation of windows and doors is extremely important. There is little point specifying a high performance acoustic window or door, yet it be installed in a way that enables sound to enter the building from around it. Therefore, correct installation and sealing around the windows and doors is critical. The installation of an equally performing wall, floor and ceiling also play a critical part in sound control for the room.

Glazing

There are a significant number of glazing types and options in the market including monolithic (float or toughened) glass, laminated glass, double glazing, and secondary glazing. Each has its own strengths and the appropriate glass should be selected that meets your unique project requirements.

- Laminated glass is superior acoustically to monolithic glass, particularly now that there are laminated glass types available with inter-layers specifically designed for improved acoustic performance.
- Double glazed units installed for thermal performance will also typically have superior acoustic qualities to laminated glass, although this will depend on the make-up of the double glazed unit.
- Secondary glazing offers the most superior solution for acoustics with an optimum 100mm gap between panes of glass providing the best acoustic performance.

Further details

The weighted sound reduction index (or Rw) along with Correction Factors (C &Ctr) is the industry standard for rating windows and doors acoustically. This method provides a convenient method of rating sound insulation using a single number (Rw) with the correction factors (C & Ctr) accounting for different noise spectrums.

Capral Aluminium has an extensive list of acoustic tests on its products. For further details please contact your local Specification representative or sales office.
Security

Feeling safe in your home is an important factor. Security screens not only provide that security, they also improve the liveability of the environment.

Security screen strength, unobstructed views and a triple locking system are all part of the Amplimesh® Security Product range.

**CHALLENGE**
Security Grilles fitted with restricted vision or one way vision panels offer privacy however they can sometimes be impractical as they are reliant on light direction and to maintain a conversation with a visitor means you will need to unlock and open your door removing any security feature.

**SOLUTION**
Choose SupaScreen® by Amplimesh® as your screening option to enjoy clear unobstructed views through fine woven stainless steel mesh. Have a conversation through the screen behind the high tensile strength of the 316 marine grade stainless steel woven mesh.

By insisting on SupaScreen® by Amplimesh® means you are placing a vigilant guardian on the property with very low on-going maintenance. A product made locally with supreme workmanship, built for Australian conditions and backed by Amplimesh® with a 10 year warranty.

**CHALLENGE**
Not inviting fresh air flow into your home can be a health issue. To avoid 'Sick Home Syndrome' outdoor air is necessary to reduce the amount of indoor pollutants such as bacteria, mould and mildew.

**SOLUTION**
Use a Security Screen as an all round ventilation tool to increase the natural cross flow ventilation. Whilst maintaining the security of your property, over the warmer months it can also be reducing your carbon footprint by reducing your reliance on air conditioners and lowering the energy costs. Fresh air ventilation that is insect free.

Safe and Sound

Placing the right security screens on the property will make the property stand out as a safe and considered option for the potential tenant. Great in senior living communities and essential for part-time homes as these screens will also act as a property guardian when the home is empty and un-manned.

Happy Campers

Tenants are more likely to rent continuously and be happier if they reside in a safe environment and their possessions feel comfortable and safe. Consider Fire Egress Window Screens for additional safety functionality and ease of cleaning.

Solid Investment

Protecting an investment with security screens is preventative maintenance to helps prevent potential property damage occurring. A purchase can not only be tax-effective but depending on the level of insurance cover you may be entitled to insurance premium deductions once an installation is complete.
Standards Compliance:
Amplimesh® Security Products are rigorously tested to ensure they meet a number of relevant Australian and Industry Standards including:

**Security**
  Amplimesh® products are subjected to a rigorous regime of impact tests, jemmy attacks and pull testing under this standard, to ensure that the inherent strength and structural integrity of the manufactured security product is maintained.

- **Australian Standard AS5039-2008 and AS5041-2003 – Knife Shear Test**
  SupaScreen® Stainless Steel mesh is tested for material hardness and tensile strength by subjecting the mesh to a standardised physical cutting attack, which draws a knife over the mesh a number of times.

**Fire**
- **Australian Standard AS1530.4-2005, Appendix B7 – Fire Attenuation Test**
  SupaScreen® Stainless Steel Security products have been tested in general accordance with this standard and when exposed to incident radiant heat achieves a 41% reduction in the radiant heat flux between the inside and outside of the product.

- **Australian Standard AS1530.8.1-2007 – Bushfire Test**
  SupaScreen® Stainless Steel Security products have been tested under this standard and satisfies the Bushfire Attack Level (BAL) 40 requirements.

**Cyclonic**
- **Australian Standard AS1170.2-1989 – Cyclonic Missile Impacts**
  Department of Health, Western Australia Health Facility Guidelines for Engineering Services, 2006.
  The commercial range of security screens can also be specified dependent on your cyclonic region. Further testing and product information can be found on the Amplimesh® website at www.amplimesh.com.au.
  SupaScreen® Stainless Steel Security products have also been tested to and satisfied the more onerous testing regime of this Standard. The same piece of timber is impacted into the screen at the faster speed of 20m/s followed by 8mm steel balls at 30m/s followed by fatigue testing.

- **Australian Standard AS1170.2-2002, Clause 5.3.2 – Cyclonic Missile Impacts**
  In cyclonic regions windows and doors may need to be protected from flying debris. SupaScreen® Stainless Steel Security products have been tested to this standard, resisting the 4kg, 100mm x 50mm timber travelling at 15m/s.

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Q: **What is a triple lock when it comes to Security Doors?**

A: A triple lock is your security door lock which connects and locks your door in three points with a one flick operation whether your screen is hinged or sliding. It provides additional support for any potential break-ins or home invasions and is one of the key components of having a compliant Security Door. Your triple lock comes standard with any Amplimesh® Security Door. Without a triple lock, it is simply not a security door.
Capral Aluminium Solutions

Capral's Aluminium products offer solutions that can be used to cover each requirement of Community Living. For your specific project needs, contact your local Architectural representative or sales office.

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<tr>
<td>Doorway Circulation</td>
<td>✓</td>
</tr>
<tr>
<td>Luminance Contrast</td>
<td>✓</td>
</tr>
<tr>
<td>Visual Indicators on Glazing</td>
<td>✓</td>
</tr>
<tr>
<td>Door Controls</td>
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