Built in days, last for century …

PRODUCT OVERVIEW

Rapid Building System™

AUSET PACIFIC PTY LTD

AUSET PACIFIC PTY LTD

- For assembly of building within **wide range of purposes**: residential, commercial and industrial, for new and house extensions.
- On average, **construction time is three times shorter** than conventional construction
- **No hidden costs**, the purchase price is firmly established
- **Earthquake resistance**, wood is light building material but more resilient than brick or concrete
- **Wind resistance**, System is design with OSB bracing which guarantee compliance
- **Eco friendly materials**, no radioactive radiation or unhealthy gas emissions, no static electricity, no dust born allergies
- Superior energy saving properties with **8.5+ Star Rating**
- **Cyclone Engineered,** the fact the structure of number of prefab homes survived the recent Hurricane Sandy in USA unscathed speaks volumes about its resistance to wind & earthquake.
- **BCA compliant**
- Computer Aided Design (**CAD**) and manufacture (**CAM**) systems utilised for fast and efficient production whilst achieving high quality
- **Design** of composite structures of our Standard System is **fully flexible** and customised per Customer's architectural & structural design

RIGHT TIME, RIGHT PLACE & RIGHT PRODUCT

RIGHT TIME

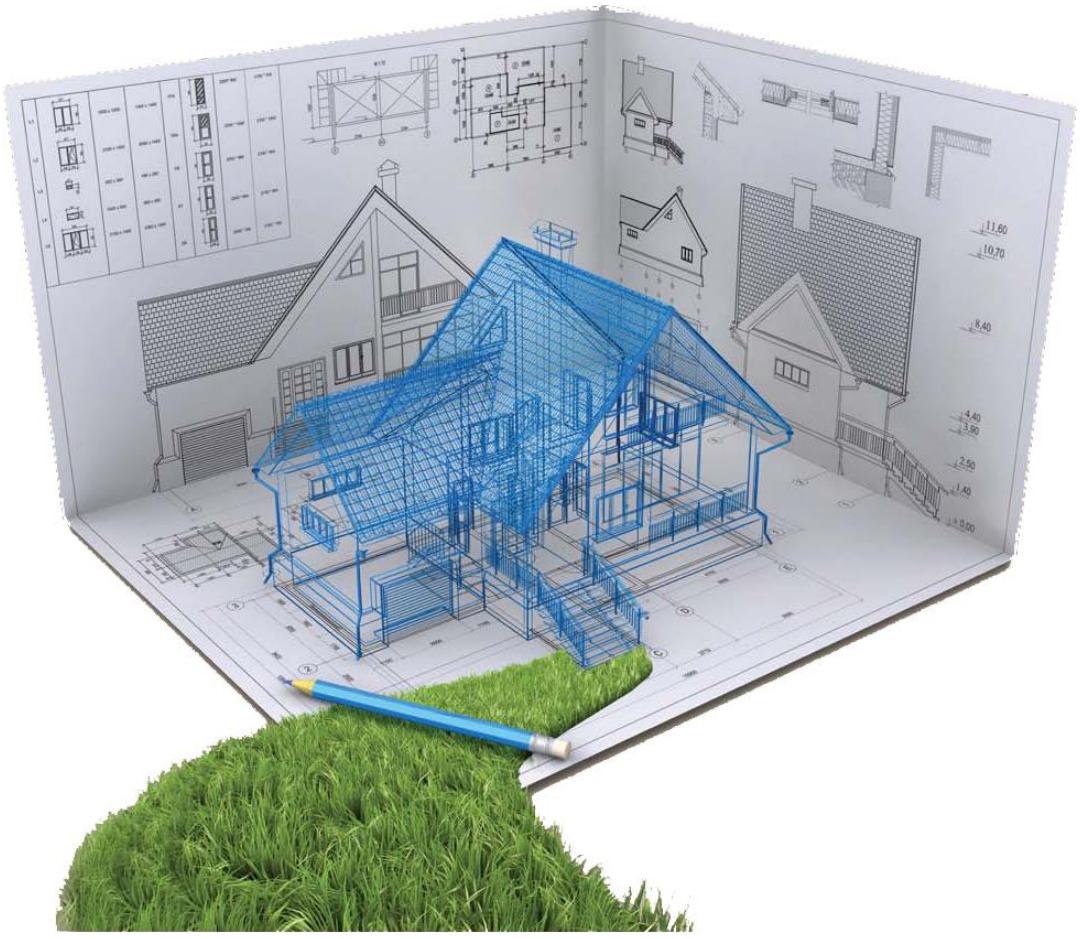
- Under "**Five Star Plus**" banner new regulations have been introduced across Australia in order to support the reduction of energy use in homes as well as the reduction in greenhouse emissions, and subsequently to lower energy cost.
- New energy efficiency provisions have been introduced in The Building Codes of Australia (**BCA**) and it applies to all new houses. This code is designed to lower the amount of energy consumed per household. A five-star rating has been designed as a minimum.
- The energy efficiency rating for houses go as far as 10 Stars towards **Low Energy Passive Houses**, with a **10 Star** rating implying **Zero House** with no need of energy for cooling and heating.

RIGHT PLACE

- In accordance with Europe and US experiences, newly introduced regulations will challenge the current method of construction in Australia and lead to new and rewarding opportunities for the right players willing to embrace change.
- Energy efficient green building technologies are at the leading edge of a growing movement to take care of the planet and encourage a sustainable economy.
- The message for the housing industry is – change the way you build houses and make them more energy efficient. Our building materials will be able to keep up with the required changes.

RIGHT PRODUCT

- Our Insulated Panels change the way we think about what energy performance should be in a building.
- There are other products in the market place that are trying to address sustainability issues; however, we believe, we can provide products of the highest standard of quality and service.



AUSET PACIFIC PTY LTD

TIME AND COST

SAVE MONEY **cheaper** comparing to standard construction method

SAVE TIME **three times** shorter construction time then other conventional methods

SAVE ENERGY **50% less** energy consumption comparing to standard construction method

SAVE WATER **90% savings** due to dry operation

ADVANTAGES

Our advantages are healthy and sustainable construction, fast setup, environmentally friendly materials, suitable for all kinds of climates.

SUPERIOR STRUCTURAL INTEGRITY	most of the components are **factory fitted**
QUALITY CONTROL	production under controlled environment conditions **QA verified**
PROTECTED FROM THE ELEMENTS	building material **protected** in factory
SOUND AND THERMAL INSULATION	for both **internal and external walls**
DOORS AND WINDOWS	high quality laminated timber, **double and triple glazed thermal** glass windows fitted in factory
ELECTRICAL	**corrugated fire resistant PVC conduit** with junction boxes fitted during the production in factory, electrician pull out through conduits and connect
PLUMBING	fitted during the production in factory, prepared for plumber contractor to access and install and connect
ROOF STRUCTURE	completed in factory, transported as a panels ready to install
NO WASTE PRODUCED	**no waste** produced during assembly stage
REDUCED LOSSES	**reduced losses** caused by vandalism and pilferage
CARBON FOOTPRINT	significantly **reduced**
LOW MAINTENANCE	**long lasting** product
EARTHQUAKE, FIRE AND WIND	**resistant**
H2 TERMITE	**protected**

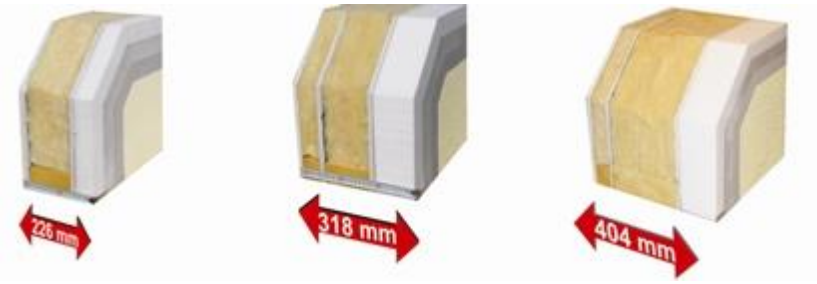
AUSET PACIFIC PTY LTD

ENERGY EFFICIENCY

Energy savings requirements in construction of family homes have grown significantly in recent years.
Accordingly, our building components satisfy the following criteria:

- External Wall Insulation Rating (R value) = **6.75 R**
- Ceiling And Roof Insulation Rating (R value) = **7.51 R**
- Windows and Doors Insulation Rating (R value) = **1.1 R**

The **R-value** is a measure of thermal resistance used in the building and construction industry.



Low-energy external wall panel U = 0.195 W/m2K	Passive external wall panel U = 0.135 W/m2K	Close to Zero energy external wall panel U = 0.104 W/m2K

The U value is the number of watts that will pass through 1 square meter of a material. The U-value (or U-factor), more correctly called the overall heat transfer coefficient, describes how well a building element conducts heat. It measures the rate of heat transfer through a building element over a given area, under standardized conditions.
The usual standard is at a temperature gradient of 24 °C at 50% humidity with no wind (a smaller U-value is better).

AUSET PACIFIC PTY LTD

ENERGY EFFICIENCY CLASSIFICATION

Auset Pacific Rapid Building System™

Building System	Location		
Brick Veneer R1.5 with R2.5 ceiling and Aluminum w/single Low E Glazing	Sydney	2166	7.1 stars
	Darwin	800	6.8 stars
	Hobart	7000	6.4 stars
	Perth	6000	7.7 stars
	Adelaide	5000	7.2 stars
	Ballarat	3350	6.4 stars
Cavity Brick R1.0 with R2.5 ceiling and Aluminum w/single Low E Glazing	Sydney	2166	7.1 stars
	Darwin	800	6.8 stars
	Hobart	7000	6.2 stars
	Perth	6000	7.8 stars
	Adelaide	5000	7.3 stars
	Ballarat	3350	6.3 stars
Auset Pacific Rapid Building System™	**Sydney**	**2166**	**8.3 stars**
	Darwin	**800**	**7.0 stars**
	Hobart	**7000**	**7.8 stars**
	Perth	**6000**	**8.5 stars**
	Adelaide	**5000**	**7.8 stars**
	Ballarat	**3350**	**7.8 stars**

1. The same building plan has been used in all simulations with a conditioned space of 86.9m2
2. The brick veneer structure has wall insulation of R1.5 and ceiling insulation of R2.5
3. The cavity brick structure has wall insulation of R1.0 and ceiling insulation of R2.5
4. Glazing for brick veneer and cavity brick homes is Aluminum w/single Low E Glazing U=5.32 and SHGC=0.47
5. Rapid Building System™ constructions are as per specifications from Auset Pacific
6. For Hobart, Adelaide and Ballarat climate zones R2.0 insulation on slab on ground has been used in all designs
7. All external surfaces are of medium color
8. Neighboring properties have not been simulated and the exposure has been simulated as suburban

RANGE OF ENERGY CONSUMPTION - RAPID BUILDING SYSTEM™ - up to 23.5 MJ/m2 per year

LOW-ENERGY HOUSE

Low energy house is an icon of sustainable building implementation throughout its whole life cycle, starting from careful selection of building materials, whose production does not damage the environment, through their energy efficiency and rational energy spending over the lifetime, to the rational waste management. In addition, low energy houses, including the passive house provide a high living comfort with a pleasant climate all year round with a very low heating/cooling associated cost.

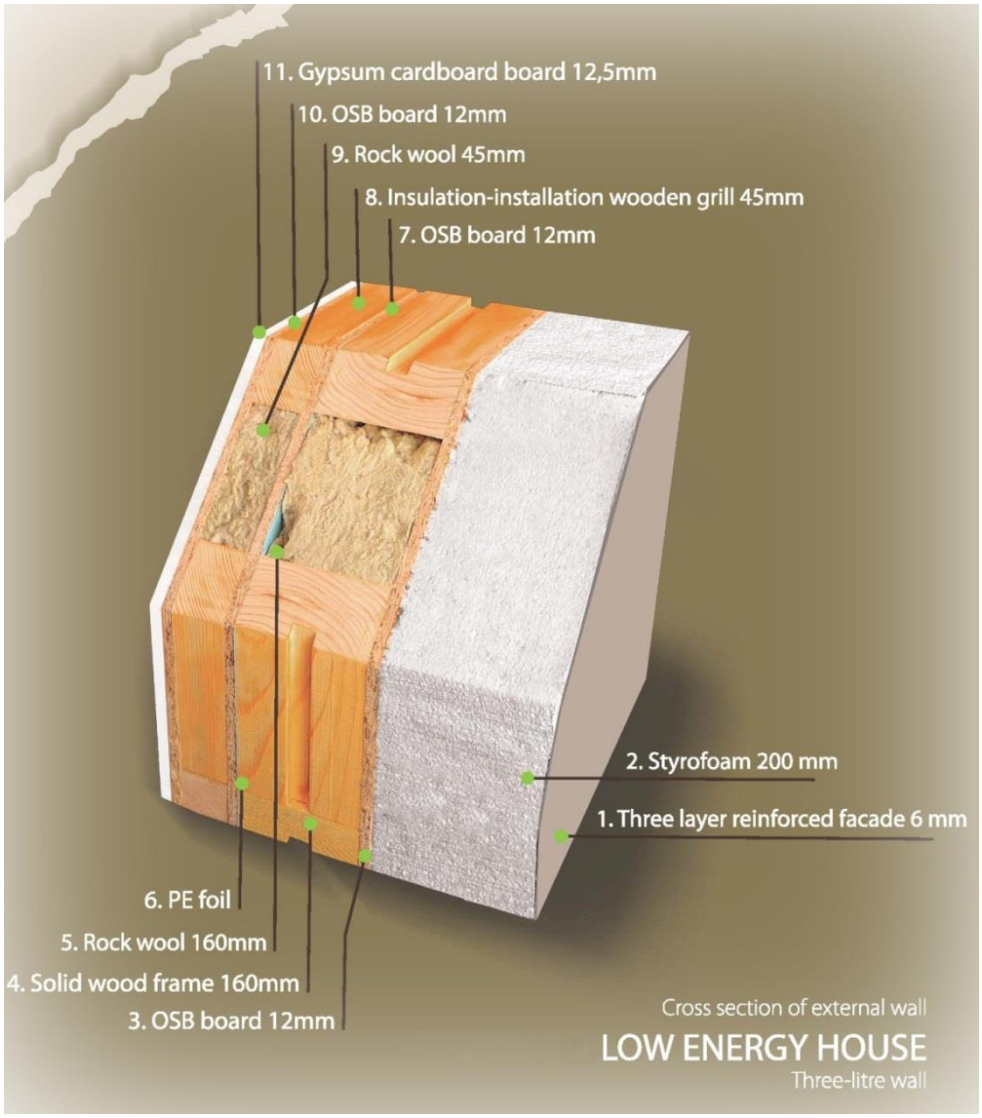
PASSIVE HOUSE

Passive house refers to standard for energy efficiency in a building reducing its ecological footprint. It results in ultra-low energy buildings that require little energy for space heating and cooling. All of this is achieved by using super-insulation materials, advanced window technology, air barriers and careful sealing of all construction joints, good ventilation, various mobile and fixed shades, outdoor shatters and awnings.

Passive house is 90% heated and cooled passively, thanks to the energy emitted by other household equipment and by occupants, as well as solar energy.

ZERO HOUSE

Zero-energy house refers to building that over a year does not use more energy than it generates.



Cross section of external wall – Three Liter wall

Award winning products

ACOUSTIC PERFORMANCE

Weighted Sound Reduction Index value, related to Acoustic properties of the Rapid Building System™

- External Wall Acoustic Insulation Rating (Rw value) = **52 dB**, as per European Standard HRN EN ISO 717-1:1998

- Internal Wall Acoustic Insulation Rating (Rw value) = **46 dB**, as per European Standard HRN EN ISO 717-1:1998

The Rw Value - Weighted Sound Reduction Index is a single number used to rate the effectiveness of the System as a noise insulator.

Rw describes the airborne sound insulating power of a building element. It is a laboratory measured value. It can apply to walls, ceiling/floors, ceiling/roofs, doors, or windows.
The higher the number, the greater the sound insulating power of the building element.

FIRE REQUIREMENTS & TERMITE PROTECTION

To achieve objective in respect to the Fire Requirements of the BCA for the Building Classes 2 - 9, to prevent a fire from spreading between apartments and common corridors, or other parts of the building, **Rapid Building System™** is using **FERMACELL Gypsum Fibreboards**

Rock mineral wool used in Rapid Building System™ is **KNAUF Group** product.

Oriented strand board, also known as **OSB** is an **engineered wood product** formed by layering strands of wood in specific orientations

It is manufactured in wide mats from cross-oriented layers of thin, rectangular wooden strips compressed and bonded together with wax and resin adhesives (95% wood, 5% wax and resin). Purpose of OSB panel within the Rapid Building System™ is not only **structural bearing** but **additional bracing** to meet requirements such as defined in **AS 4055-2006 Wind loads for housing for Cyclonic area.**

KRONOPLY anti-termite square-edge is a specially developed by **Swiss KRONO Group**, **termite-resistant OSB product** for export to and use in regions where termites are endemic, such as southern France, **Australia**, Africa and USA.

All material used for Rapid Building System™ has been already introduced to Australia and worldwide market.

Recently, we are exploring option to use **Magnesium Oxide Board** instead OSB board & plasterboard within product structure. It has similar properties in respect structural bearing and bracing requirements for Cyclonic wind situation, but it is giving additional benefits in for termite and mould resistant, fire requirements mentioned above and high-impact properties. It can be used for wall, ceiling, roofing and flooring panels: **www.magnumbp.com**

UL approved fire resistant, water resistant, high-impact construction panel that is well-suited for both interior and exterior sheathing applications.

BUSHFIRE PRONE AREA

For construction in Bushfire prone area, **Rapid Building System™** construction elements will be treated with Intumescent Coatings of AS3959 bushfire compliant Fire Retardant which complies with Australian standards as required by Bushfire Attack Levels (BAL) introduced in the AS3959-2009 Bushfire standard.

Australian Standard - AS 3959 - provides for a range of Bushfire Attack Levels for proposed construction. Each Level is based on the assessed threat and as the assessed threat increases, so do the restrictions on the building materials that may be used.
Where there are restrictions on the building materials, timber construction treated with Fire Retardant is permitted for use in up to BAL 29 bushfire zoning.

TYPICAL CONSTRUCTION

Standard offer - Rapid Building System™ of large panels, custom designed & built to suite:

- **External walls where render façade**
  External leveling compound foil with Styrofoam sheets ready for render, main load bearing structure reinforced with timber studs & timber frame elements lined with OSB panels, mineral wool as thermal insulation and plasterboard for internal finish

- **External walls where brick façade**
  Main load bearing structure reinforced with timber studs & laminated frame elements lined with OSB panels, mineral wool as thermal insulation and plasterboard panel for internal finish (brick layer by builder)

- **External walls where timber cladding façade**
  Timber cladding - treated naturally durable timber, protected with coating, color per Customer's choice, main load bearing structure reinforced with timber studs and laminated frame elements lined with OSB panels, PE foil, mineral wool as thermal insulation, plasterboard panel for internal finish

- **Internal walls**
  Internal partition bearing and self-supportive panels, reinforced with timber studs & laminated frame elements, mineral wool as thermal insulation, OSB panels and plasterboard panels

- **Mid-floor structure with ceiling**
  OSB panel, laminated timber joists, mineral wool as thermal insulation, PE foil, battens, ceiling plasterboard panels (plasterboard provided by Auset and installed after lining electrical installation & plumbing by builder, builder to provide floor finish)

- **Internal hardwood staircase**
  Noggins will be done per drawings where needed, stair is coming polished & finished with stair rails

- **Roof construction**
  Roof battens, timber trusses and/or rafters, mineral wool with PE foil lined with OSB panel

- **Doors and windows**
  High quality wood, double insulated glass windows, U= 1,1W/m2K, painted and protected, with all necessary accessories – fitted during the production in factory, painted per Customer's choice

- **Electrical**
  Corrugated fire resistant PVC conduit with junction boxes fitted during the production in factory, electrician pull out through conduits and connect

- **Plumbing**
  Fitted during the production in factory, prepared for plumber contractor to access and install and connect

EXCLUSIONS

- All necessary documentation to ensure smooth operation for the assembly
- Water and electricity on site
- Crane, scaffolding & all concrete work
- Earth work & landscapes
- Driveways, paths, paving & ramps
- Kitchens, laundries, bathrooms & robes*
- Mailboxes, bin stores & garage doors
- Porte Cochere, Porch, Patio, BBQ or Deck areas
- Electrical wire distribution, switchboard with power measuring set and bodies
- Plumbing connections & outlets
- Hot water units
- Air conditioning units

The ship container transport should take from 6 to 8 weeks. Transport is in 40’ open-top containers, one container per approx. 70m2 of floor area.

BENEFITS

The idea is to move redundant job-site tasks into a controlled environment to minimize waste, maximize efficiency, neutralize weather issues and make a quantifiable process of material recycling into a priority.

While our lives are influenced by technology in virtually every way, the home-building process is generally the same as it was 200 years ago. The home-building industry as a whole needs to look to the empirical data gathered through building science rather than relying upon tradition to move the industry toward a more sustainable and more efficient future.

Traditional building practices are full of unnecessary redundancies and conventional job-site construction is terribly inefficient and wasteful. On typical construction sites, up to 30% of raw building materials - including wood, metal, glass, rubber, petroleum-based materials, cardboard and paper - often end up in landfills. The industry lacks building-material recycling programs, suffers inefficient deployment of carpenters and subcontractors, and sees very poor quality control. Conventional construction workers seldom receive benefits, and workman's compensation insurance premiums are three times as high for site work as for shop work.
The System takes the layout, cutting and pre-assembly of site-built stick-framed walls and put it in the controlled environment of a manufacturing facility.

Building systems in the "shop" allows for increased efficiency, minimal waste and working with more precision, all while keeping the materials (and workers) dry and not exposed to the elements. A manufacturing facility can produce full walls, framed with advanced techniques in which windows and doors are installed in a fraction of the time it takes to do the same tasks onsite. This complete wall system can be delivered to the job site with insulation and fitted onto the foundation via crane, ready for the electrical and plumbing contractors to do their work the way they are used to doing it.

The fact is, reducing material waste and the costs associated with on-site labour will reduce the overall cost of building a home. It will reduce the builder's tipping fees, reduce labour and fuel costs associated with hauling waste and employee commutes, and reduce insurance premiums. Centralizing wood cutting operations in the facility promotes wood reuse, which can reduce wood waste by 15%. The in-shop environment also protects materials from deterioration and exposure which helps mitigate any trapped moisture related issues that can occur when a site built homes framing and subfloor is exposed to the weather for any length of time. And it allows us to choose products with little or no packaging and use durable, locally produced, recycled content materials and finishes where available. A stable, in-shop environment helps ensure a correct amount of material is delivered at the appropriate time and integrated into the structure with precision and maximum efficiency.

Rapid Building System™ is produced in an indoor factory setting; it can be constructed any time of year, and are not subject to weather delays.

The System can be designed to offer a uniform and continuous air barrier that improves insulation and helps homeowners stay comfortable while reducing their heating and cooling costs. Improved insulation helps homeowners reduce energy costs and provides builders with an additional selling point.

As **Rapid Building System™** is fully customized per architectural and structural design, appropriate costing can be done after reviewing project documentation and building requirements by our architects and engineers.
It also largely depends of the size of the project.

For building with **Rapid Building System™** there are two options:

1. Basic option (Roh Bau)where System is produced up to lockup stage, “shell” of the house up to final finishes level, to be built and finish by local building company, with assistance of assembly specialist-instructor
2. Full option, which include team of assembly workers to build and finish building to turnkey (exclusion are concrete and any masonry work)

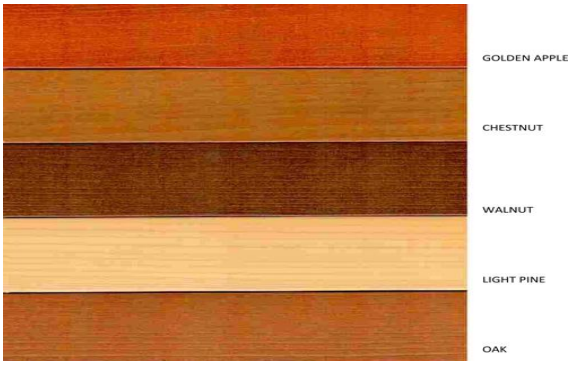
JOINERIES, STAIRS & CLADDING

Rapid Building System™ joineries and stairs are made of **high quality wood**, **naturally durable**, **treated and coated for protection**.

Joineries are made of **top quality** fir-spruce three-layer glued elements of **A class**. The elements are bonded with **water resistant glue for wood** (D4). Protection is done by submerging in **ECO impregnation** solution, repeating the process for two protective layers.

Color is choice of Customer and can be transparent and non-transparent.
There are **six basic colors**:

- golden apple eco
- chestnut eco
- walnut eco
- light pine eco
- oak eco
- white eco



Doors and windows furniture comes from Austrian company [Schachermayer]

WINDOWS

Windows is **double glazed with thermal insulated glass** 4+16+4 mm which gives optimal sound and thermal insulation.
Thermal insulated glass 4+16+4 mm is **filled with argon** with coefficient of **thermal conductivity λ = 1,1 W/mK**.

Double glazing will dramatically **reduce your energy bills** as **up to 70%** of heat gained or lost through standard 3mm window panes.

Double glazing can **reduce perceived noise from 60% to 90%** (**40dB**), ideal for retirement homes, main road site applications, or wherever noise is an issue.

The benefits of double gazing include:

- Energy **saving**
- **Noise** reduction from 60% to 90%
- **Low maintenance**
- UV stabilized, **designed for extreme Australian conditions**
- **Lack of thermal bridges** and thermal conductivity **eliminates condensation** on the profile

MADE TO MEASURE

At Auset Pacific there is no such thing as "off the shelf". Every single window and door is produced in accordance with an individual specification, without compromising on delivery times.

AFFORDABLE QUALITY

The reasonable price combined with long-lasting quality makes **NATURA** windows an excellent choice. **NATURA** window delivers all the benefits of **Rapid Building System™** quality

WARMTH OF WOOD

Enjoy the natural warmness of **NATURA** windows. Wooden look creates a more inviting and attractive indoor while adding beauty and charm to any home's facade. **NATURA** windows can be tailored to suit your home by choosing from a variety of wood types such as oak and fir, which each achieve a different look. Wood can also be painted, stained or carved to further customise your window frames

NATURA 64 TECHNICAL DATA

Window

Double glazed with Argon gas filled panes, warm-edge glazing as standard

Sound insulation 32-47 dB

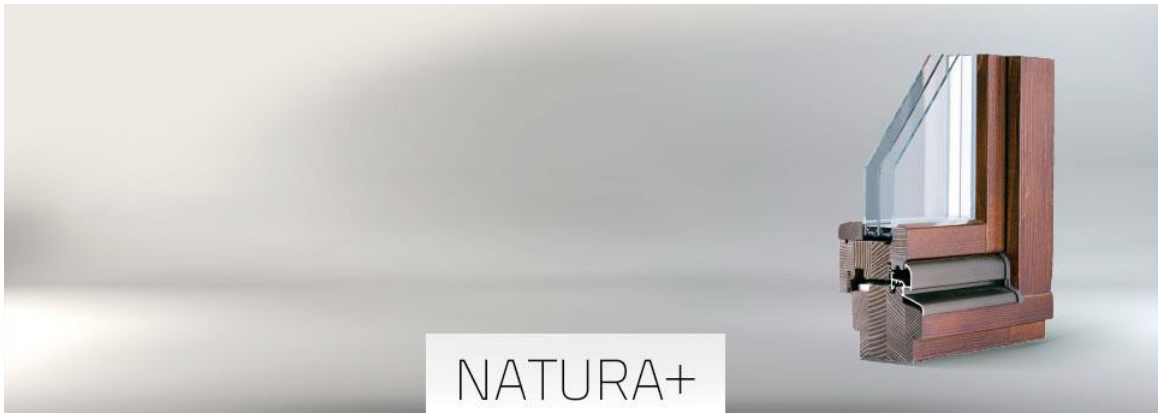
Low-E Energy Glass as standard -Low-emissive (Low-E) glass is window glass that has been treated with an invisible coating, creating a surface that reflects heat, while allowing light to pass through

Opening sash

Maximum U-value for a standard window is **1,4 W/m2k**

Heat transmission

Glazing heat transmission for NATURA 64 window is **Ug 1,1 W/m2k**



MADE TO MEASURE

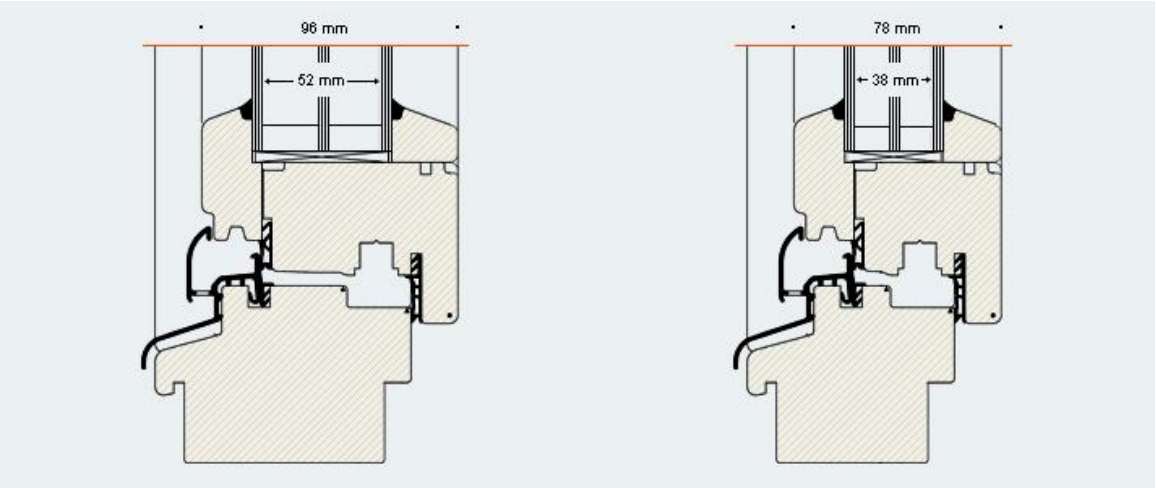
At Auset Pacific there is no such thing as "off the shelf". Every single window and door is produced in accordance with an individual specification, without compromising on delivery times

WARMTH OF WOOD

Enjoy the natural warmness of **NATURA+** windows. Wooden look creates a more inviting and attractive indoor while adding beauty and charm to any home's facade. NATURA windows can be tailored to suit your home by choosing from a variety of wood types such as oak and fir, which each achieve a different look. Wood can also be painted, stained or carved to further customise your window frames

ENERGY EFFICIENT

NATURA+ is one of our premier windows when it comes to energy efficiency, u-value up to **0,8 W/m2k** makes it ideal for low energy houses
It includes new glass options and design refinements which makes it more energy efficient than ever



NATURA 76 TECHNICAL DATA

Window

Triple glazed with argon gas filled panes, warm-edge glazing as standard

Low-E Energy Glass as standard -Low-emissive (Low-E) glass is window glass that has been treated with an invisible coating, creating a surface that reflects heat, while allowing light to pass through

CO2 neutral windows, which will meet expected building regulations in 2020

Special options include tinted and noise blocking glass which can **reduce noise penetration by 35dB**

Opening sash

Maximum U-value for a standard window is **1,02 W/m2k**

Heat transmission

Glazing heat transmission for NATURA 76 window is **Ug 0,7 W/m2k**

NATURA 96 TECHNICAL DATA

Window

Triple glazed with krypton gas filled panes, warm-edge glazing as standard

Low-E Energy Glass as standard -Low-emissive (Low-E) glass is window glass that has been treated with an invisible coating, creating a surface that reflects heat, while allowing light to pass through

CO2 neutral windows, which will meet expected building regulations in 2020

Special options include tinted and noise blocking glass which can **reduce noise penetration by 35dB**

Opening sash

Maximum U-value for a standard window is **0.8W/m2k**

Heat transmission

Glazing heat transmission for NATURA 96 window is **Ug 0,5 W/m2k**

MADE TO MEASURE

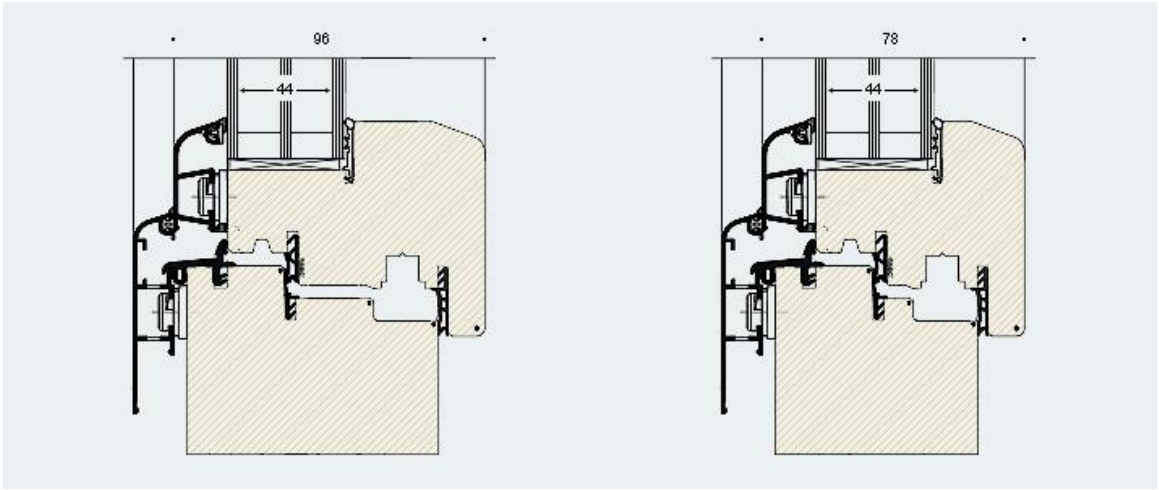
At Auset Pacific there is no such thing as "off the shelf". Every single window and door is produced in accordance with an individual specification, without compromising on delivery times

WARMTH OF WOOD

FUTURA windows are encased in durable, heavy-duty, extruded aluminium; it resists chipping, fading and denting, and makes painting a thing of the past. Inside, you'll still enjoy all the warmth and beauty of natural wood
The combination of aluminium and timber is the modern, future-proof solution for windows and doors.
FUTURA windows have much longer life as the timber is not directly exposed to wind and weather

AFFORDABLE QUALITY

FUTURA 96 is our premier window when it comes to energy efficiency, u-value up to **0,8 W/m2k** makes it ideal for low energy houses. It includes new glass options and design refinements which makes it more energy efficient than ever



FUTURA 76 TECHNICAL DATA

Window

Triple glazed with argon gas filled panes, warm-edge glazing as standard

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CO2 neutral windows, which will meet expected building regulations in 2020

Special options include tinted and noise blocking glass which can **reduce noise penetration by 35dB**

Opening sash

Maximum U-value for a standard window is **1,02 W/m2k**

Heat transmission

Glazing heat transmission for FUTURA 76 window is **Ug 0,7 W/m2k**

FUTURA 96 TECHNICAL DATA

Window

Triple glazed with krypton gas filled panes, warm-edge glazing as standard

Low-E Energy Glass as standard -Low-emissive (Low-E) glass is window glass that has been treated with an invisible coating, creating a surface that reflects heat, while allowing light to pass through

CO2 neutral windows, which will meet expected building regulations in 2020

Special options include tinted and noise blocking glass which can **reduce noise penetration by 35dB**

Opening sash

Maximum U-value for a standard window is **0.8W/m2k**

Heat transmission

Glazing heat transmission for FUTURA 96 window is **Ug 0,5 W/m2k**

EXTERNAL DOORS

Massive, solid hardwood used for entrance doors, made according to requirements and needs of customer. All joinery is made of high quality wood of average moisture of 8% which provides durability and resistance to outside factors. Thanks to carefully chosen wood which is adequately dried under careful attention of our experts and adequate multi layer impregnation protection, entrance doors are resistant to **temperature oscillations**.

Standard program of entrance doors are fitted with **cylinder lock barrel**, three keys set included. On Customer's request we can install special **security lock with triple locking**. Lock elements are activated through profile cylinder with two step locking. Complete system **secures** your doors by even division of closing pressure on whole surface of door leaf. Massive frame of entrance door is fitted with **triple fitting sealing** a door tight to **avoid air outflow**.

Depending of the customer's requirement entrance doors can be made of **solid hardwood** or in **combination with glass**. Specially designed **ornament** will give new visual dimension to your home. There are possibilities of combination with special **thermal insulating glass** for better thermal and sound insulation.

We can offer great choice of **Panoramic Sliding and Folding doors**. Glass used for panoramic sliding and folding doors are **double glazed** as well as for the windows.

INTERNAL DOORS

Program of **internal doors** includes three different types:

- Massive room door
- Classic room door (Allegra and Solid)
- Master-Craft room door

Massive doors are made of best quality, **First class**, especially selected **solid wood**.
Typically for production of joineries is **radial cut**, which provides better durability and resistance on elements.

Classic room doors are made in two variants:

- **Allegra room doors** is made of **solid wood** frame and leaf. Frame is filled with cardboard comb, which enables very easy move on hinges and reduces slamming noise when door is closed.
- **Solid room doors** is made of **solid wood** frame and leaf. Frame is filled with perforated chip board, which provides stability and strength of the door. The leaf can be combined with different types of glass on Customer's choice.

Solid and Allegra room doors are finally veneered with quality veneers, by Customer's choice, from transparent to solid tone colours. The frame is wrapped with **seal rubber** which provides excellent door fitting and good thermal and sound insulation.

Master-Craft room doors are clad with specially refined board. Refined board is classic designed and can be used in all types of interiors.

SHUTTERS

Shutters will give to façade a specific appearance and irresistible charm and protection from wind and other weather elements.
Wooden shutters are produced with jalousies operable and fixed, with different kinds of attractive ornaments or simple rustic shape with planks.

STAIRS

Program of **wooden stairs** offer different models and shapes of stairs made of First class hardwood chosen by Customer.
Stairs produced **with or without riser**, depend on Customer's wish. It comes with **stair rails**.

AUSET PACIFIC PTY LTD

LIGHT CONSTRUCTION BOARD

Another product with excellent thermal/acoustic properties which you might consider for your project would be **Light Construction Boards**.

Heraklith Boards or **WWCB Boards** are made of healthy and dry coniferous wood. Basic raw materials in production of WWCB boards are quality dry coniferous wood, Portland cement and additives. Wood strands are first impregnated, and then by pressing they are bonded with cement in the continuous technological process.

In this process wood strands become **resistant to expanding**, **insects**, **rotting**, **water absorption** and **fire resistanc**e is also significantly improved.
Testing of light construction boards of two and three layers proved that **properties improve over the years**.

According to quality testing report, 50 mm WWCB board was confirmed to have **coefficient of thermal conductivity λ = 0.059 W/mK, which completely corresponds with construction materials for insulation purpose.**

Technical properties**:**

- perfect surface **for rendering**
- **non flammable**
- **eco product**
- **allergy safe**
- excellent **thermal and acoustic properties**, significantly reduce time of echo
- easy to **paint** with good visual effect
- resistance to **pressure**
- resistant to **chemicals**
- not containing **chlorides**
- resistant to **moisture** and **mould**

We recommend **use of WWCB**:

- as a **construction board** for the improvement of **thermal and sound insulation**, **sound** absorption, regulation of **time of echo** and **protection from fire**
- **boards reinforced with wooden rods** are used for roofs, walls, ceilings in industrial and sports halls as well as **eco material** for the regulation-absorption of noise and **natural regulation of humidity**
- for **internal walls** for **sound and thermal insulation**
- for ceilings finish, especially **raked ceiling**
- plastered boards with mineral mortars can **protect construction from fire for up to 60 minutes**

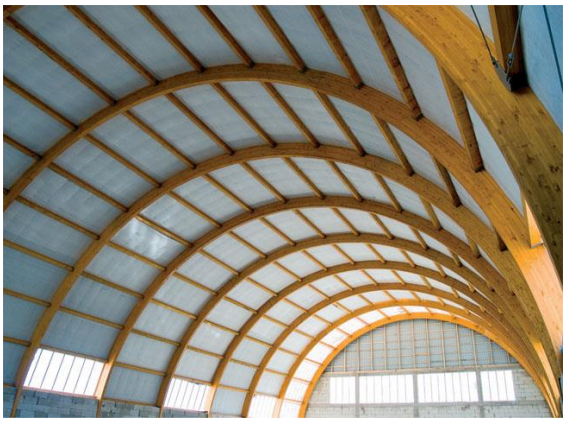
LAMINATED CONSTRUCTION

Glued laminated wood is construction material made of dry wood elements (laminas) placed on top of each other, glued with special types of glue under specific conditions. Gluing of wood laminas is parallel to the direction of wood strands.

A basic material is **fir and spruce wood of 1st and 2ndClass**.
The material has excellent mechanical properties even better then properties of solid wood and are shown in stabile cross section without curving and bursting which load bearing capacity is about 20% more than of solid wood.

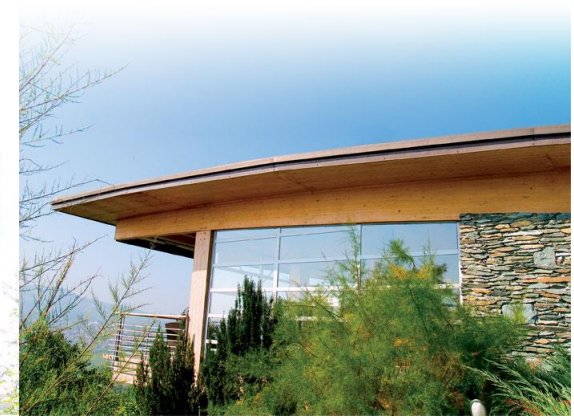
Production of **Laminated construction elements** is strictly controlled process which requires expertise, technology and air conditioned working area in which temperature is controlled. Extraordinary aesthetic effect of glued wooden structures gives special flair to modern architecture. There are three basic forms of laminated construction:

- Horizontal beams of rectangular cross section with even or variable height
- Arched beams of rectangular cross section
- Horizontal beams of " I " cross section



Flexibility of **laminated beams** as well as the fact that density of built in wood is around **6,0 KN/m3** which, comparing to reinforced concrete with density of **25 KN/m3**, clearly shows that **cross section stress due to its own weight** is **four times less in wood than in concrete**. **Constructions of glued laminated wood** are used in sports and industrial venues, supermarkets

shopping malls, swimming pools, warehouses, stables in farms, churches, chapels, pedestrian bridges and stairs.



Advantages:

- great **potential for architectural design**
- formation of **curved shapes**
- **lower load bearing pressure** on load bearing elements below, comparing to other materials
- clear **division of space** and emphasized **aesthetics**
- technical **precision**
- roof constructions of **large span without support**
- **non-existence of the thermal bridges**
- **simple connection** of elements
- **resistant** to influence of acids, bases, salts and moisture etc.
- short deadlines of production in **all seasons**
- short deadlines of construction due to **high degree of prefabrication**
- **light weight**
- **low maintenance costs** due to good protection
- possibility of **adjustment of beams to real flow of forces inside the beams** to make economical cross section