

AKD Framing.

A typical Australian home built with AKD structural pine will be re-grown in **2.5 minutes** across the Australian softwood plantation estate. A typical Australian home stores more than 3 tonnes of carbon.

Source: www.fwpa.com.au



akd.com.au



Frame with timber. Renew our future.

Australian Plantation Pine is one of the most versatile, sustainable and renewable building products in the world today with applications across the whole built environment, whether it is residential or commercial buildings, indoors or outdoors.

One of the most valued uses of Australian Plantation Pine is in structural applications, both for indoors and outside. Structural Pine is the backbone of most Australian homes.

Why would you use anything but AKD's Australian Plantation Pine Framing?

Timber is the only renewable building material and, in Australia, AKD's structural pine is Australian owned, Australian grown and Australian made.

It is harvested from sustainably managed plantations.

Trees absorb carbon dioxide during growth while releasing oxygen into the atmosphere and storing carbon as wood fibre – in fact trees filter the air during growth. Australia's plantation resource is critical in reducing our greenhouse gas emissions and with industry plans to expand the plantation resources in Australia, it can be a real part of climate change solutions for the world.

Steel production for an average 4-bedroom home releases about 7 times more CO₂ compared with pine framing.

The timber used in a typical Australian home built with AKD Terminator framing will be re-grown in 2.5 minutes across the whole Australian softwood plantation estate. A typical timber framed Australian home stores more than 3 tonnes of carbon for its life.

Source: www.fwpa.com.au

Plantation Pine is strong yet light. This makes it easy to transport and erect, while today's high-tech manufacturing ensures that every stick is traceable to quality control records. Every piece of structural pine is an engineered component that does its job economically and reliably without leaving a large carbon footprint like most building materials today.

Timber Framing **The Ultimate Renewable**





AKD Australian Structural Plantation Pine is strong and dependable. It won't let you down.

For the Builder or Tradesperson.

If you balance up the alternatives, you'll find AKD Framing is a most cost-effective framing material. It's widely available and competitively priced.

- AKD Framing framed houses are built faster. Timber is easy to get, contractors are familiar with it and there is less hassle with following trades. All of this saves time and money.
- AKD Framing framed houses are environmentally friendly. Homeowners prefer Plantation Pine because they know it's a natural, renewable and sustainable material.
- AKD Framing framed houses are adaptable. On-site problems can be solved on the spot. If you need extra materials, there's always a timber yard down the road.
- AKD Framing framed houses are simple. You don't need specialised tools or trades to work with timber.
- AKD Framing is cost effective. Renewable Australian plantations mean your timber supplies remain price competitive and do all they can to keep you happy as a customer.

Timber is the basis of Australia's housing heritage. AKD and our industry is committed to continuing our service to Australian homeowners.

For the Homeowner.

- AKD Framing is fast. It saves time because its readily available and builders know how to use it.
- AKD Framing can be prefabricated. Our framing can be prefabricated in a factory leading to greater precision and faster building times.
- AKD Framing is cost effective. Roof trusses and wall frames made from AKD Framing are value for money and offer consistent performance.
- AKD Framing is adaptable. Once the house is built, an AKD frame is easier to live and grow with than other framing materials. You can easily add shelves to walls, put up pictures, add skirtings. Do almost anything you like to fit your lifestyle.



For the Mid-Rise Developer and Builder:

With the national population projected to reach over 30 million people by 2030 and much of this growth occurring in our urban and regional centres, there will be a continued need to densify our middle suburbs through the delivery of mid-rise multi-residential and commercial projects.

Prefabricated timber framing has been shown to facilitate faster build times, safer sites, and better performing indoor environments resulting in happy purchasers and happy developers. Early adopters are already realising these benefits in the mid-rise market, and many others are starting to catch on.

Building design, construction professionals, and property developers around Australia now have easier access to the benefits of timber framing systems in mid-rise projects following deemed-to-satisfy code regulations which came into effect in 2016, providing an easy path to compliance for timber buildings up to an effective height of 25m or approximately 8 storeys for Class 2, 3 and 5. The 2019 National Construction Code (NCC) extended the use to include all classes of buildings.

AKD is proud to be a founding funding partner of the WoodSolutions' Mid-Rise Advisory Program from 2017 to 2021.

The timber option for mid-rise buildings is most viable when considered early in the design and estimating process. AKD are keen to support the market conversion and growth in light-weight timber structural solutions for mid-rise buildings. Involving us early in the project development allows us to collaborate with our supply chain, making the most of the cost, time, environmental and other advantages of light weight timber building systems which include AKD Framing products for mid-rise buildings in Australia.

Light weight timber framing solutions are the most competitive in the 4 to 6-storey new building market but also offer a commercially viable alternative for developments going up on top of existing retail and commercial space.

Light weight has the strength to go up along with the benefit of a light footprint.

Size ranges and availability

AKD can supply all the popular light framing sections and lengths. Check with your stockist for details and availability.

Our regular range includes the following (mm):

| | | | | | |
|---------|---------|----------|----------|----------|----------|
| 70 x 35 | 90 x 35 | 140 x 35 | 190 x 35 | 120 x 35 | 240 x 45 |
| 70 x 45 | 90 x 45 | 140 x 45 | 190 x 45 | 120 x 45 | 290 x 45 |

Available in most lengths of 300mm increments, from 2.4m to 6.0m.
Other sizes and lengths may be available on request.



Termites – No Problem.



Termites are part of Australia's natural ecology and environment and they can be found in most areas of the mainland. However, the termite risk can be affected by many factors such as proximity to natural bushland, age of the suburb, certain soil types and the further north we build.

Termites should not be ignored and can attack any house irrespective of its frame type. Termite risk should be assessed after consulting with the local building authorities and expert advice.

For higher risk areas or simply for peace of mind, **AKD Terminator®** is the cost effective and user-friendly termite resistant material for your structural solution indoors.

AKD Terminator is a termite resistant structural framing material as defined in the National Construction Code (NCC). Terminator utilises synthetic pyrethroid actives that have been thoroughly and independently tested in Australian conditions to demonstrate effectiveness against termite attack when used South of the Tropic of Capricorn. AKD Terminator is compliant with Australian Standards and building regulations.

And, whilst termites don't like it, AKD Terminator is safe for humans to be around. Protection from termites comes from a minimal use of synthetic pyrethroids effectively bound into the outside of the timber and locked into the frame. It is approved as effective and safe by the Federal Regulator and has been in use in Australia for over 20 years.

AKD Terminator is sourced from sustainable and renewable Australian plantation pine forests.

- Protected against termites by a safe modern wood preservative.
- Manufactured in state-of-the-art environmentally compliant facilities in accordance with Australian Standards.
- Supplied seasoned so the timber is lightweight, dimensionally stable and easy to work with.
- In line with industry practice, AKD Terminator timber is a distinct blue colour to help identification.

Suitable applications

AKD Terminator is treated to H2F level according to the Australian Standard AS1604 series. It is suitable for dry, protected building applications (not subject to weather or dampness) such as wall frames, trusses and sub-floor construction, where additional security against termite damage is desired.

AKD Terminator is approved for use south of the Tropic of Capricorn. It is not suitable for use north of the Tropic of Capricorn due to the presence of *Mastotermes darwiniensis*, an aggressive species of tropical termite, which are found in the far north of Australia.



Use and installation practices

- AKD recommends that AKD Terminator termite resistant framing is used in conjunction with appropriate whole of house protection measures as detailed in AS3660 series for the best termite risk management practice.
- Use good building practices in compliance with the National Construction Code AS1684 series, National Timber Framing Code or other applicable timber framing codes, local requirements and connector manufacturers' recommendations as applicable
- AKD Terminator must not be installed in permanently weather exposed or damp situations or in contact with masonry below the damp-proof course.
- It is not necessary to retreat end cuts, rebates and notches where the freshly exposed surface is joined closely to other pieces of treated timber or other termite resistant materials. Square cut ends do not need to be retreated, as there is little likelihood of termites initiating attack on an exposed end grain .
- AKD Terminator timber must not be rip sawn or re-thickened as this may nullify the protection provided by the treatment and will void the guarantee.
- Planing of wall studs for straightening at selected points before application of wall linings is permissible providing that only one face is planed. Under these circumstances, no retreating is required.
- Do not store or hold AKD Terminator timber uncovered (including during construction) for more than 3 months. Excessive weather and moisture exposure may impair the performance of the treatment and may void the guarantee. Do not store AKD Terminator® timber directly on the ground for any extended period.
- Nails and fixings: The treatment used in AKD Terminator is non-corrosive. Normal steel nails and plates are suitable. Once dry the treatment does not affect nail or plate holding.

Safe handling instructions

The preservative used in AKD Terminator is safe for general use in homes and general construction. However, handling and working with any material, particularly where airborne dust is generated, may present some hazards.

The following safe handling and personal hygiene measures are recommended for AKD Framing:

- Keep the work area clean. Do not allow wood dust to accumulate.
- Avoid inhaling wood dust and wear a filter mask while power sawing, machining, sanding or any operation where wood dust is generated.
- Dust particles will remain airborne for some time after machinery is turned off. Masks should continue to be worn after the use of machinery while there is still exposure to the dust. This is more of a concern when working in small/enclosed spaces or areas with little ventilation.
- Protect the eyes while using power tools or any work where small particles may be ejected.
- Brush or wash sawdust off skin and clothes.
- Wear gloves to protect from splinters and wash hands after work and before eating, drinking or smoking.
- Wash wood dust contaminated work clothing and safety equipment before reuse.
- DO NOT BURN treated timber off-cuts or waste pieces



Do not use treated pine shavings or sawdust for animal litter



Always wear dust masks, ear protection and goggles



Do not use treated pine to cook food



Always wear gloves when working with timber



Do not burn treated pine



Wash work clothes separately



Do not allow treated pine to come in contact with drinking water



Dispose of waste in an approved landfill

Disposal

Domestic and trade users should dispose of offcuts and redundant pieces through normal waste collection services as residential or construction and demolition waste. Do not use for composting, mulching or animal bedding. Do not burn as a means of disposal.

Contact your council to find out about the particular waste disposal and recycling services provided in your area.

Why more Australian home builders and owners choose timber framing



Proven and Popular

Lightweight timber framing is the popular choice for Australian homes. Decades of experience have ensured that the system is safe, reliable, cost-effective and well understood by designers, professional builders and even experienced DIY'ers. Owners and occupants can be assured that they are gaining the advantages of a proven building method.



Fire predictable

A home's timber framing is usually protected by cladding, often brick on the exterior and plasterboard on the interior. Timber maintains its structural integrity for a long time as it chars at a predictable rate.



Termites and Durability

In designated termite areas, it is important to install a termite barrier system to build termites out. This is because, regardless of the material used for the frame, termites can still eat through other items such as flooring, joinery and plasterboard if they have access. They can also cause damage to electrical cabling. Today, in areas subject to termite attack, timber framing is made from wood safely treated to resist termites, so that is no longer a worry. In fact, many Australian timber framed houses are well over 100 years old which shows the longevity of wood.



Strong, stable and quiet

Since the properties of timber are so well understood, a timber-framed house won't be noisy, as it doesn't expand and contract during temperature changes and risk premature cracking in plaster linings.



Low-cost flexibility

Today, most framing systems are prefabricated or built offsite. However, any last-minute changes or variations are easily made onsite by carpenters equipped with all the tools they need. Of course, if they need extra timber, it's as close as the nearest hardware store.



Fast to assemble

Prefabrication, flexibility and builders' knowledge of how timber frames are assembled, (joints, connections, tie-downs and bracing) combine to deliver fast, efficient buildings to lock up stage.

Ease of renovation

When a family outgrows their home, more space is needed, or you buy a home requiring renovation, timber framing is simple and easy to work with. Whether it's removing existing framing, adding more timber framing or both, the ready availability of designers, materials and tradespeople familiar with the material make it an easier process.



Simple installation of services

Timber frames can be easily drilled to install plumbing and electric cables, unlike some materials that require cushioning grommets to protect cable insulation during installation and limit longer term damage to plumbing due to expansion and contraction or corrosion.



Insulating

Timber framing helps insulate your home as it has a higher R-value than many other materials. This means that it doesn't act as a 'thermal bridge', conducting energy (heat) from one side of a wall to the other.



Renewably and responsibly sourced

Most Australian-sourced timber is covered by either one or both certification systems, Australia's Responsible Wood, which is endorsed by the world's largest certification system the Programme for the Endorsement of Forest Certification (PEFC), or the Forest Stewardship Council. This means that the wood you use has been produced in an environmentally responsible and sustainable manner.



Environmental advantage: Low embodied energy

Wood has the lowest embodied energy of all common building materials. This is a measure of the energy (usually produced by greenhouse gas-emitting generators) that is used to convert the wood in trees to framing timber.



Environmental advantage: Stores carbon from the atmosphere

Choosing wood removes greenhouse gasses from the air. Approximately half the dry weight of wood is carbon, absorbed from the atmosphere by a growing tree. Using timber in buildings stores the carbon for as long as the building exists or the timber is reused or recycled.



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