Save up to 25% off your energy bills with bricks

CKST

Create a low maintenance home for life Live comfortably and in style

TΜ

build for living



bricks are the all round solution for comfort, style and affordable living

When planning to build a sustainable home and a comfortable life, you have a lot to consider. With their complete range of cost, comfort and style benefits, bricks are the one and only choice.

Bricks are an energy saver

Brick regulates internal temperatures in a way most materials do not, helping to keep you warm in winter and cool in summer. This means there is less reliance on artificial forms of heating and cooling, saving on energy bills.

Bricks are low maintenance

Bricks don't need paint or other treatments to maintain aesthetics and durability. Even after 50 years they are still strong, reliable and relatively maintenance free, saving you on the cost and time required to upkeep your home, compared to lighter weight materials.

Bricks for comfortable living

By naturally moderating temperature fluctuations, bricks help keep an even temperature in your home in both summer and winter.

For an all round comfortable living environment, bricks are your one and only choice.

Style and design

Bricks add distinct style to any type of home. Their natural colours and textures enable you to create striking façade contrasts or more traditional neutral colour tones.

By investing in new technology Austral Bricks® have been able to introduce new kiln firing techniques to produce bricks with a variety of surface finishes, exciting colours and different sizes.

The result is a wonderful range of bricks for you to build a stylish, contemporary home.

create an energy efficient and comfortable home easily with bricks

Designing and constructing an energy efficient home can dramatically reduce the amount of energy you consume.

You can save money on electricity and gas by choosing a building material that increases your home's energy efficiency by naturally maintaining comfortable temperatures the humble Aussie brick.

Bricks not only keep you comfortably cool in summer and warmer in cold weather, they also keep you safer with their proven strength and durability.

Best of all, the longer you keep your brick home, the more money you save. Unlike many other building

materials, bricks require almost no maintenance, and their high energy efficiency benefits mean your home will use less energy now and in the long run.

Reduce your energy consumption and live comfortably year after year after year.

By combining bricks and insulation in your home, you can reduce your heating and cooling bills by up to 25 percent. What's more, with energy bills predicted to rise even further in the next few years, these savings are only going to get bigger. Take advantage of brick's natural benefits and save.

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Save on the costs of running and maintaining your home

Save up to off your energy bills with brick every year^{1*}



Did you know 39% of your energy bills goes into heating and cooling your home²

7STAR Creating a 7 STAR

energy efficient home is easy and affordable with bricks

Design and build your home to suit your local conditions

Build with bricks to take advantage of L their natural heating and cooling properties

Incorporate bricks within the internal walls of your home to help control internal temperatures

- Source: "Sustainable Energy Info Fact Sheet", Sustainable Energy Authority Victoria: University of Newcastle
- * When combined with common insulation measures
- ² Source: "Think Energy Savings", Think Brick Australia



brick is the most energy efficient building material

How bricks increase your home's energy efficiency and comfort.

Bricks play a big part in controlling internal temperatures and reducing energy consumption.

An energy efficient home is one that provides a high level of thermal comfort without an over reliance on artificial heating and cooling. Best of all, bricks create a more stable internal air temperature so you can enjoy a comfortable, controlled environment

Data derived from tests conducted by The University Newcastle into the Thermal Performance of Australian Housing. Testing was conducted on a west facing wall in summer.

How do bricks help save energy?

Bricks help reduce the amount of artificial heating and cooling required to maintain comfortable temperatures through their thermal mass.

Thermal mass is the ability of a material to absorb and retain solar heat energy. The high thermal mass of brick helps to significantly reduce heating and cooling bills in a way lightweight materials simply can't compete against.



clay bricks outperform lightweight materials

Bricks are more energy efficient than lightweight materials.

Results from eight years of independent research conducted by the University Newcastle into energy efficient housing proves:

Insulated cavity brick (full brick)

energy efficiency

Lightweight construction

was the worst performing

The following diagram illustrates how energy moves through your home, with cavity brick as the best performer

building in all seasons

in delaying the transfer of heat, then brick veneer, with lightweight

materials ineffective.

construction performs the best for

A building material's energy efficiency is measured on more than just the manufacturing process, it's how it performs in a lived in home.

The energy consumption for spring conditions demonstrated that the insulated lightweight building required a greater amount of heating and cooling compared to insulated cavity brick*.



*Source: Think Brick Australia, 'Energy efficiency and the environment. The case for clay brick.', Edition 4, 2011.

bricks for living

Time it takes for heat to pass into your home (known as thermal lag)





10% when you build with bricks

Brick homes are a solid investment for years to come.

Did you know 85% of new home builders choose bricks for their home construction?

That's because brick is a sound long term investment that brings peace of mind for years to come, making it Australia's preferred building material. Building your home in full brick means that if you choose to sell it, the resale value of your home is likely to be at least 10% higher.

However if you choose to keep it, you'll enjoy your home's classic good looks and value for longer than any other construction material.

A brick home can also be your legacy for the generations who come after you - one they can be proud to raise their own families in.

Reduce your maintenance bills.

Independent research has shown that the longer a brick house stands, the more energy efficient it becomes. Coupled with reduced

maintenance bills, bricks can save you thousands of dollars.

Building your home with brick ensures it remains weatherproof, durable and attractive for years to come. It's cost-effective as brickwork doesn't need painting, rendering or any other coating to preserve its good looks and durability. Unlike other materials, bricks keep your home stylish without all the hard work. Better still, the natural texture of brick actually hides dirt, unlike paint finishes which highlight grime.



Save up to

every year on energy bills and maintenance of your home with the efficient performance of bricks¹

A lifetime of benefits with bricks.

A brick home is one that's built to be enjoyed for the long term

- $2 \begin{array}{c} {}_{\text{Bricks are durable and strong so your}} \\ {}_{\text{home can last a lifetime without the}} \end{array}$
 - need for costly repairs and maintenance
- ${f Q}$ Bricks stand the test of time against
- J weather, aging, rust, warping and decay
- Your brick home will keep you comfortable 4 Your brick nome will keep , each and safe no matter what the season



www.designingforclimate.com.au

research and understand your climate

zone, which will help when designing

Warm Humid Summer



Buildings experience higher cooling than heating loads.

The main goal of the external walls should be to reflect heat away from the home which is maximised using cavity clay bricks.



*

Sydney



Buildings experience higher heating than cooling loads.

The main goal of the external walls should be to absorb heat during the day which is stored and then gradually released at night.

Hobari

principles of Passive Solar Design

how do you design an energy efficient home for your climate?

Designing to suit your environment can make all the difference. Your home should be designed following some basic design principles known as "Passive Solar Design" in order to take full advantage of energy efficiencies. Passive Solar Design takes your local environmental conditions into account with these four key design principles:

Orientation

Position your home relative to the sun to take advantage of its natural energy. Ensure your windows are North-facing to allow in the winter sun while overhanging eaves will shade your home from the heat of summer.

Ventilation

Good ventilation is essential to an even temperature. Well positioned doors and windows on both sides of your home will allow crossventilation to keep your home cool in summer. Ensure they are properly sealed for winter.

Insulation

Wall and ceiling insulation is key to keeping even temperatures inside the house. Full brick helps protect your home from any weather extremes and provides superior sound insulation from the outside and in between rooms.

Thermal mass

Well positioned internal brick walls will help you achieve the best energy efficiencies with brick, capturing nature's own energy to reduce your reliance on artificial heating and cooling - keeping you comfortable all year round. Brick's ability to absorb, store and re-release heat energy makes it one of the best performing materials for energy efficiency.





Winter





higher performing energy efficient housing

9 Star House - Western Australia

The Jade 909 House utilises the four well-established Passive Design Principles: Orientation, Insulation, Ventilation and Thermal mass.

Coined as "beyond carbon neutral", it has no air-conditioning, just ceiling fans to assist ventilation and the three kilowatt PV cells exceed the home's power requirements. The result is a water saving of 76 percent over a standard house and a remarkable 119 percent energy saving. The use of clay bricks and terracotta roof tiles is a feature of the home as both are materials that have a very long life expectancy.

The design and construction of the home meets not only high levels of sustainability but it's also affordable. How affordable is it? The base model is around \$200,000 rising to about \$285,000 as displayed with photovoltaic cells, grey water system and rainwater tanks. Not surprisingly, the home won numerous awards at the WA GreenSmart Awards, including the coveted Home of the Year and Water Efficiency Award.

8 Star House - Queensland

One of Queensland's major project builders has developed in conjunction with Austral Bricks[®] and Bristile Roofing[™] an 8 Star House at the Eprapah Estate in Victoria Point, Queensland.

The 8 Star House demonstrates how heavy weight materials in conjunction with clever design can reach unprecedented energy efficiency levels while still achieving a pleasing aesthetic and contemporary style. From the positioning of the windows, to the choice of building materials, the 8 Star House has been designed to be cool in the hot summer months and warm in the cold season. The rooms are light and airy because the home is oriented to make the most of winter sun and summer airflows, and the exterior has deeper roof eaves to provide shade. The classic brick exterior, roof tiling, striking internal brick walls and beautiful ceramic flooring are not only distinctive design elements of the home, but they also combine to store energy from the sun and replace the need for artificial heat and cooling.

The 8 Star House is an impressive example of sustainable design with real world application, developed in conjunction with Austral Bricks[®] and Bristile Roofing[™].



build with bricks to help reduce your household emissions

bricks recycle well, unlike other building materials

Reuse of building materials commonly saves about of embodied energy that would otherwise be wasted

The ability to reuse a product lengthens its lifespan and ensures the energy used in its manufacture is spread over a longer time period, thereby taking advantage of it's longer lifecycle to achieve greater efficiency in energy use.

The advantage of using bricks is that

they can be reused simply by moving them from one house to another without the need to expel any further energy in re-manufacture of the product.

Many building materials cannot be reused and some competing alternatives require the material to be melted down and reformed through

an energy intensive high firing process prior to reuse.

Building with bricks is the first step to sustainability. Not only does brick last a very long time but it requires little to no maintenance and can be easily reused or recycled.

By building with bricks you are not only taking advantage of their energy efficiency benefits, you are also having an impact on the amount of carbon pollution that your household emits.

Building with bricks can save you up to 2 tonnes of carbon pollution per year by using less energy*

SAVE POWER

* Based on the average NSW Household energy usage. www.savepower.nsw.gov.au

the benefits of bricks keep stacking up

Bricks act as a sound barrier.

Whether between rooms within a home or from noise outside, brick provides superior sound insulation. So whether it's the garbage truck outside at 5am or your teenager's drum kit at 11pm, you can enjoy more peace and quiet in your own home.

Bricks are durable.

Once it's built, your brick home remains weatherproof and age proof, with minimal upkeep. Brick doesn't get tired like other man-made materials, giving you both a sound mind and a sound home.

Bricks are termite resistant.

Bricks are termite resistant because termites can't eat bricks. If you build a full brick home, with a steel roof frame, on a concrete slab which has the recommended indentation on the slab, your home will be termite resistant to all structural elements.

Brick is the healthy, natural building material.

Brick is manufactured from naturally occurring materials and do not emit volatile organic compounds as many lightweight products can.

With virtually no emissions and high thermal mass, brick is the right choice for the healthconscious as it caters for those with acute allergies or sensitivity to weather.

Not only is brick better for your health, but it's also better for our planet. Bricks are taken from the ground and can be returned to the ground without causing landfill or pollution. They can be reused, keeping their original properties and features intact, or even recycled.





bricks. style with substance

Bricks offer you style and choice.

With over 100 years of manufacturing experience to our name, Austral Bricks[®] is transforming the humble brick into a versatile and creative design material.

We've combined style, form and function with an extensive range of colours, shapes and textures so you can opt for a home that's modern and contemporary or elegant and classic. It's your choice with brick.

Individuality and design.

The new generation of brick design and manufacturing means you can take advantage of its unrivalled strength and natural character while creating a look that's more versatile than ever before.

Today's brick selection offers a range of sizes, shapes, colours and textures to give you endless options for a unique and creative home design for both internal and external walls. Plus, brick blends beautifully with other materials like timber, steel, pavers and tiles to create a striking and stylish look.

While innovation and variety is always available, you can also choose a more traditional look with brick – one that harmonises well with your local environment.





associated companies



Austral Bricks[®] is the largest and most efficient producer of pavers, bricks, building materials, façade systems and landscaping products in Australia. With the commissioning of a new brick factory at Wollert, Victoria in 2012 we continue to set the pace for quality, efficiency and high levels of environmental performance. The introduction of robotic brick handling equipment at plants around Australia enables us to greatly reduce manufacturing costs and enhance production flexibility.

*australmasonry

The acquisition of a number of concrete masonry manufacturers has complemented established manufacturing Victorian facilities and led to the formation of Austral Masonry[®]. Through natural growth and acquisition Austral Masonry[®] has become a significant player in the market for masonry block and retaining wall systems on the East Coast of Australia.

*australprecast

A new addition to the Brickworks Building Products[™] family, our inventive precast solutions team works with clients to deliver architecturally striking and commercially costeffective solutions for the industrial, commercial and residential markets. World-class style is built on attention to detail, so we're proud of our relentless focus on the use of advanced technology, quality control and commitment to service.

A bristileroofing

Bristile Roofing[™] was established in 1929 when Sir Lance Brisbane opened his first terracotta products factory in Perth. The division is now one of Australia's largest manufacturers and expert installers of quality terracotta, and concrete roof tiles.



Auswest Timbers® manufactures a diverse range of timber products including heavy structural timbers, roof tile battens through to floor boards and decking. The company has manufacturing plants in Western Australia, Victoria and the A.C.T.

bricks for living

bricks for

build for living

We are committed to social and environmental responsibility and sustainability, and are proud of our record of community support.

Austral Bricks[®] is a name you can trust

We're proud to boast a history of brick making that spans over 100 years. Our heritage goes as far back as 1908, when the company was first founded as The Austral Brick® Company. Since then, we've survived both World Wars, the Depression era and modern economic fluctuations to emerge as the industry leader and innovator.

Our manufacturing operations nationwide are cutting-edge, as we strive to implement the world's best technology and environmental practices while offering a wide range of products and a quality you can depend on.





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