

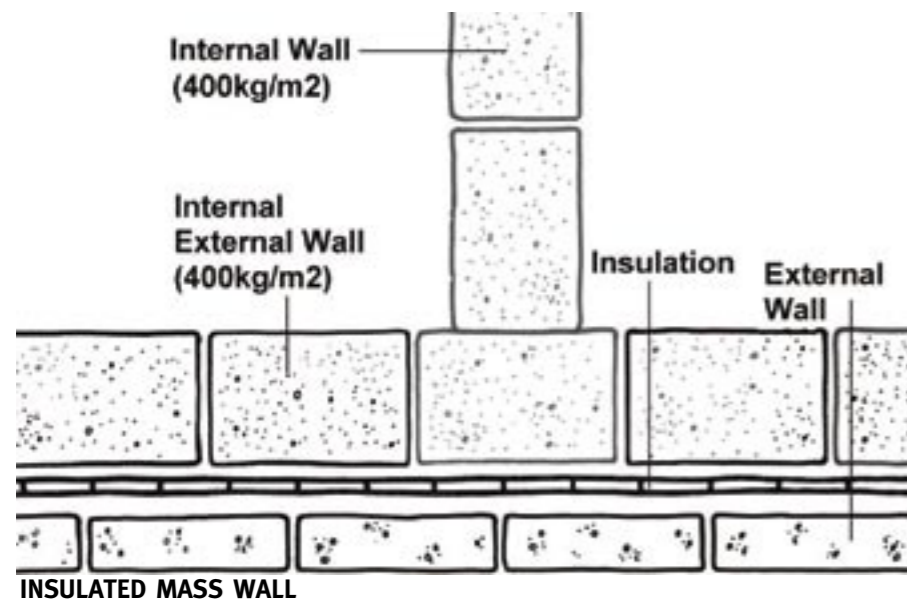


Measurements: Size 390*230*100mm, coverage 20 bricks/m2, weight 18kg.

TERRA FIRMA BRICKWORKS

Naturally fire-resistant pressed-earth bricks

These environmentally friendly, reasonably priced bricks perform remarkably in fire events



Terra Firma Brickworks has been manufacturing pressed-earth bricks in Victoria for more than 18 years. Terra Firma bricks are made from completely natural clay, sand and silt materials. They are manufactured in a hydraulic press under 10-tonne pressure and moulded from non-reactive clays with no additives, ensuring they do not give out toxic chemicals.

FIRE-RESISTANT QUALITIES

Natural, untouched earth does not burn at all. As Terra Firma bricks are made from natural earth and are 230mm thick, they have an excellent four-hour fire-rating resistance. This means that, in a bushfire situation, the fire storm has well and truly passed before any heat from the fire has moved through the brick. Pressed-earth bricks have shown remarkable performance in fires.

EXCELLENT THERMAL AND ACOUSTIC PROPERTIES

The bricks provide a superior natural constant temperature internally because of their high thermal mass with the ability to store room temperature for longer. Natural pressed earth takes two-and-a-half times longer to heat up and cool down than kiln-fired bricks, cement

blocks or stone, thereby suspending the average room temperature for two-and-a-half times longer. Ultimately, heating and cooling costs are reduced by 50 per cent if Terra Firma bricks are used for most internal walls, as the bricks ensure maximum heat is retained (stored) in the cooler months and cooler air is retained (stored) during warmer months.

What's more, the excellent thermal properties can be further increased by putting an insulated "skin" over the external walls, creating an excellent reverse veneer (see diagram on opposite page). For little extra cost, you can increase the thermal performance by 1000 per cent (depending on design).

This outside skin can be made from normal house brick, tin or cement sheet with insulation in between. A home built this way is capable of holding its temperature for 30 days, depending on the types of door and window openings.

HOW IT WORKS

The average 20-square home will have 200 square metres of brick walls, including most internal walls. Each brick weighs 18kg (20kg with mortar), which is 400kg/m². That equates to 80 tonnes of natural earth walls that are insulated from the changing outside temperatures. If the outside temperature varies by 20 degrees, say, -5 to 15 or 25 to 45, then it has to heat up or cool down an 80-tonne mass that is insulated from the extreme temperatures. The temperature and

climate inside the house will not change. It can be likened to the "flywheel effect". Once a flywheel is up to speed it takes very little energy to maintain it.

Pressed-earth bricks are also extremely sound-resistant, making them ideal for ensuring a peaceful home. Noise is not only diminished from the outside of the house, but is also reduced internally from room to room.

INSECT RESISTANCE

Terra Firma bricks are extremely dense (18kg each) and contain no organic matter, creating exceptionally solid walls that leave little or no space for vermin or insects. The natural materials the bricks are composed of also discourage termites or any other pest capable of causing structural debilitation.

ENVIRONMENTALLY FRIENDLY PRODUCTION

Terra Firma bricks (natural pressed-earth bricks) are the most carbon-friendly building material of all. The raw material is pushed up, wetted down with water and pressed into a brick. Once the water has dried out, all that's left is simply pressed natural earth.

The bricks are kept dry by the use of eaves and a waterproof render paint or water-repellent sprayed directly onto the outside surface (which Terra Firma supplies). The inside can be rendered smooth and painted with an acrylic paint or sealant, tiled, wallpapered

or even have plasterboard screwed and glued directly onto the face of the brickwork so it looks like any modern home. Natural pressed bricks will last indefinitely if they are maintained adequately with suitable eaves, render or water repellent.

Terra Firma bricks can also be easily recycled back to natural earth, thus making them one of the most ecologically friendly building materials on the planet.

COST AND DELIVERY

Terra Firma bricks are reasonably priced with each brick costing only \$2.53 (including GST). Twenty bricks are used per square metre with a wall thickness of 230mm, making it an affordable option. Half bricks are also available, ensuring all your building requirements can be met economically. The bricks are conveniently delivered anywhere within Australia and Terra Firma Brickworks can provide quotes on supply, lay and render for jobs all over Australia.

COMPANY PROFILE

With 15 years of brick manufacturing experience, owner and managing director Rory Stainton has considerable expertise and knowledge of the capabilities of pressed-earth brick dwellings. In more recent times, he has focused on developing a low-carbon, low-embodied-energy standard house brick through Geo Brick Pty Ltd (www.geobrick.com.au). The company offers a range of beautiful, natural, untreated pastel-coloured bricks that capture the essence of the Australian earth and bush as well as its long-established pressed-earth bricks.

The company uses new environmentally sensitive methods of manufacturing to ensure its bricks are made efficiently and ecologically. Terra Firma Brickworks offers free sample bricks for you to take home and consider, and has a superior service in which the company not only supplies the chosen bricks, but can lay them and provide on-site assistance. +



Terra Firma manufactures its own beautiful natural coloured renders that will compliment your home to any street or landscape

details

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