

FirmaSoft® Wall and Ceiling batts

Application

This installation guide provides installation recommendations for FirmaSoft® insulation supplied in batt form in residential wall and ceiling applications for both new build and retrofit applications.

Important Notes

FirmaSoft® Wall and Ceiling batts are supplied in widths to meet standard wall and ceiling frame spacing.

- All insulation shall be installed in accordance with AS 3999.
- Refer to the latest ICANZ installation handbook Part 2: Professional Installation Guide for information and tips.
- Ensure that all safety assessments are carried out relevant to the project and all site safety requirements are strictly adhered to.
- Electric cables and equipment partially or completely covered with bulk thermal insulation may overheat and fail. Refer to AS 3999 – Section 2.6 for details.
- Leave a minimum side clearance of 50mm from the body of heat-emitting fixtures such as luminaries, exhaust fans and flues, unless otherwise stated by the manufacturer of the equipment.
- When installing R7.0 Ceiling Batts in a ceiling where the plasterboard has a load limit < 4kg/m², it is recommended to string or tape the frame before installing the batts.
- Where cutting is required, use a sharp knife and straight edge. Do not cut insulation with power tools.
- FirmaSoft® insulation products are not designed to withstand weathering. External cladding should be applied without delay. These insulation products are not suitable for applications where subject to wetting or excessive moisture.
- Prior to installation, calculate the amount of insulation and fixings required.
- FirmaSoft® insulation products must be installed dry.
- Avoid compression and/or gaps in the insulation, other than where required, around electrical fittings or as specified as this will reduce the thermal performance of the installed product.
- Avoid using multiple small offcuts to fill single areas. Use larger single pieces, purpose-cut to fill larger gaps.
- Check that there are no signs of seepage beneath bathroom/s floor/s (and other wet areas).
- Organise to repair damaged plumbing or sewer work before beginning insulation project.
- Ensure roof space areas are adequately ventilated. Roof spaces can become very hot, particularly in warm weather. Take breaks and drink plenty of water to get relief from the heat during installation.
- Engage an electrician before commencing installation to ensure power is isolated.
- Before entering the ceiling space, make a sketch of the location of any electrical equipment in the ceiling such as downlights and exhaust fans.

Insulation required

- Measure the square metre of area to be insulated.
- Coverage of FirmaSoft® Wall and Ceiling batts is provided on the relevant Technical Data Sheet.
- Divide the area to be insulated by the coverage per pack to determine the number of packs to order.
- Allow for wastage. As a general rule, allow for 5% wastage for simple areas and greater allowances for more complex areas.

Accessories

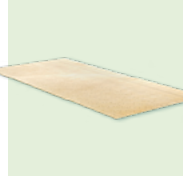
- FirmaSoft® Wall and Ceiling batts can be held in place with simple stringing such as pvc tape.
- Any stringing selected and method of stringing install should minimise the unevenness of contact of the plasterboard against the framing.
- Generally FirmaSoft® will stay in place when installed prior to wall sheeting being installed.

Tools



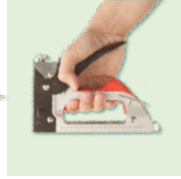
Sharp knife

With a plastic (non-conductive) handle for cutting insulation to size.



Cutting board

Or hard, durable surface.



Staple gun

With non-metallic staples to staple tape or string, if required.



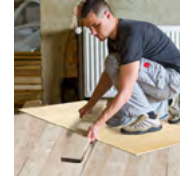
Tape or string

If installing from underside of ceiling or if wall insulation is to be left for an extended period.



Batt poker

Of a non-conductive material such as wood or plastic, if installing from below and ceiling is not in easy reach.



Kneeling board

To span two joists if needed to install insulation within roof spaces.



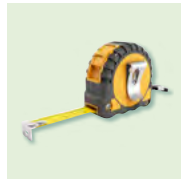
Torch

For use in roof spaces.



Ladder

Or scaffolding as needed.



Tape measure

To measure lengths required.

PPE

Personal Protective Equipment (PPE) must be compliant with the requirements of the specific worksite and relevant Australian Standards. Check with site foreman or site representative to ensure that required PPE obligations are met. As a recommendation for handling and installing insulation materials, the following PPE is recommended:



Eye protection

Suitable eye protection to AS 1336 reduces the risk of eye contact with dust or fibres. Safety glasses must be worn when installing from beneath the ceiling.



Gloves

Gloves are recommended, especially when cutting insulation.



Work clothes

Loose fitting clothes, including long sleeved shirts, long pants and cap or hard hat.



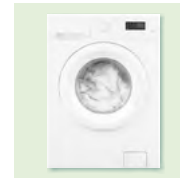
Dust mask

A dust mask is recommended when working in dusty areas.



Safety shoes

Safety boots/shoes must be worn to protect feet.



Separate wash

Wash work clothes separately and rinse the washing machine after use.

Safety

The following activities are recommended but not limited to these items. A full site-specific safety assessment must be completed to ensure installation is safe.



Assess

Assess the building structure and site for any safety issues prior to commencing work.



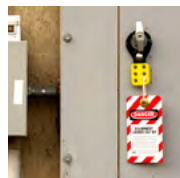
Check

Before entering a ceiling space, make note of the location of equipment in the ceiling such as lighting luminaires, exhaust fans and fire sprinklers.



Electrical wires

Ensure the work area is safe from hazards including electrical cabling. Do not touch any live electrical cables.



Isolate power

If accredited, isolate power at the circuit board where necessary and apply caution tags to circuit breakers.



Electrician

If not accredited, ask appropriate site representative to isolate power at the circuit board where necessary and apply caution tags to circuit breakers.



Height

Working at height can be dangerous, exercise caution when climbing ladders or accessing elevated platforms.



Stay hydrated

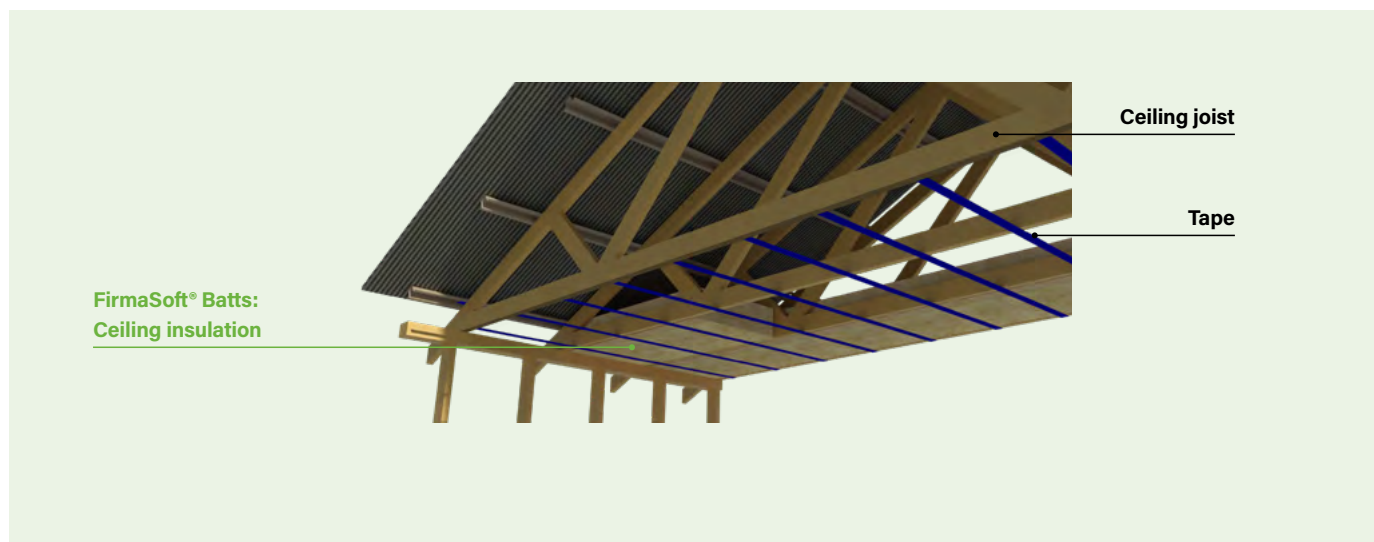
Stay hydrated and get relief and fresh air regularly.

Flat and raked ceilings: New build

Fitting FirmaSoft® batts to ceiling joists before ceiling is installed

- Run tape strapping at regular intervals (3–4 straps per batt) and at 90° to the joists. Fix between joists to keep batts securely in place.
- If required, a batt poker can be used to push batts between joists.
- Friction fit the insulation, ensuring there are no gaps between the insulation and ceiling joists.
- It is important that the insulation is secured so it cannot fall.
- Butt the batts closely together to ensure there are no gaps left at joints.
- Continue to work until ceiling is fully insulated and butting up to the external wall frames or brickwork.
- Ceiling/perimeter insulation shall not extend less than 50mm past the interior side of external wall/building envelope to enclose the conditioned space.
- Ensure a clearance of not less than 20mm between batts and the roof sarking or roofing.
- If brickwork is single skin and exposed to water, it is recommended a Sisalation® membrane is used, or maintain a 50mm gap from brickwork to prevent moisture ingress through capillary action.
- Offcuts may be used to fill small spaces to ensure complete coverage. Use single offcuts rather than multiple small pieces to fill voids.
- If you have any gaps or pipe work, cut batts to fit around.
- Where a thinner batt is required due to limitations on space, it is recommended that a high density product is used to reduce R-value loss. This may require the remaining insulation be increased to compensate and shall be calculated as per the requirements of AS 3999 Appendix E.

Install from below the ceiling



Flat ceilings: Retrofit

Fitting FirmaSoft® Batts to ceiling from within roof space

- Place the insulation packs in the roof space and spread them around. Leave unopened until needed.
- Commence working from one side or from the furthest point from the man-hole access.
- Open one pack of batts at a time.
- Never walk on plaster ceilings. Stand only on ceiling joists and only after checking they are safe to stand on.
- Place the kneeling board across at least two ceiling joists before kneeling.
- Friction fit the batts between the ceiling joists.
- Butt batts closely together ensuring there are no gaps.
- Continue until the ceiling area is fully insulated and extends 50mm over the external wall top plate.
- Ensure a clearance of not less than 20mm between batts and the roof sarking or roofing.
- Avoid blocking natural ventilation.
- Using the batt poker, push the batts into the areas that are difficult to access.
- Cut the batts on the cutting board.
- Offcuts may be used to fill small spaces to ensure complete coverage.
- Ensure the man-hole is completely covered with a cut-to-size batt.

Installing from within roof space



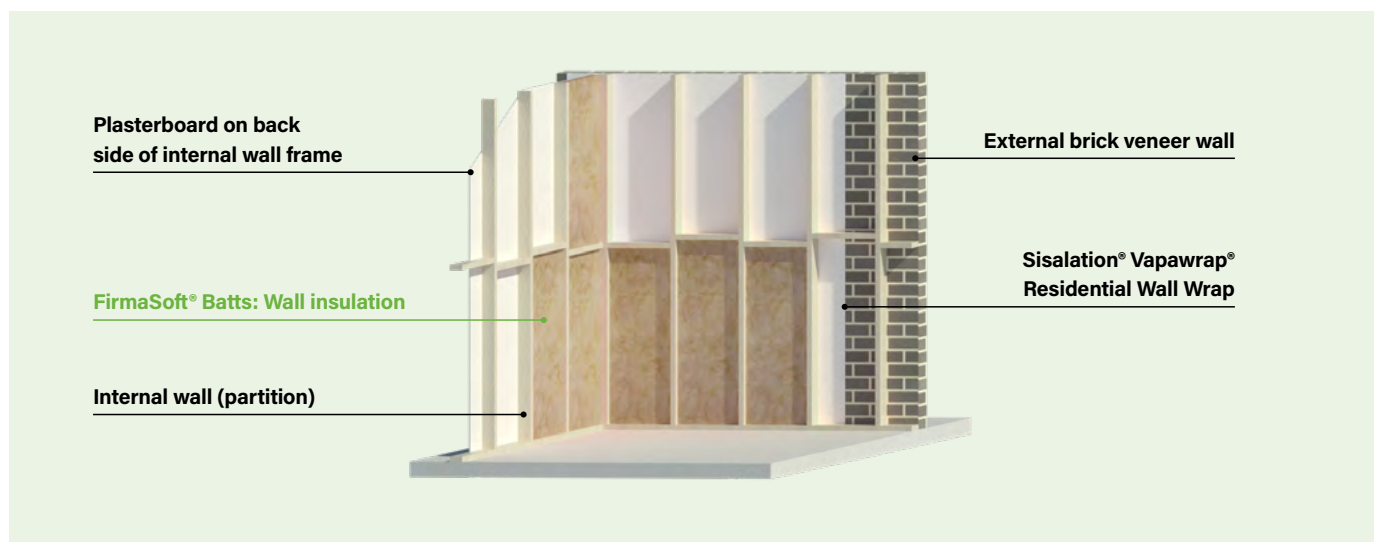
Stud framed external and internal walls

- Check the centre to centre distance between studs in the wall frame.
- Sisalation® wall wrap should be fixed across the external face of the frame before installing the insulation from the inside. If string/twine is used, twine should be fixed between each set of studs from the top to the bottom, running parallel with the studs. It is imperative to ensure that batts are not in contact with external facade or else moisture ingress will occur. Where two lengths are used they should be evenly spaced. Spacing of the string/twine shall be a maximum of 300mm spacing and be a maximum distance of 300mm centres from a stud and/or noggin.
- Friction fit the insulation into the wall frames ensuring no gaps between the insulation and studs or noggings.
- In metal framing, the insulation shall be inserted into the open side of the channel.
- Ensure that the insulation does not protrude past the studs and fits snugly and/or cut to size, where required, around services, pipework or other rigid obstructions in the wall.
- Butt the insulation edges closely together to ensure there are no gaps left at joints.
- In multi-storey construction, wall insulation of the same or greater R-Value shall extend from the ceiling to the adjacent floor to ensure a continuous envelope.
- Offcuts may be used to fill small spaces to ensure complete coverage. Use single off cuts rather than multiple small pieces to fill voids.
- Where required and when insulation is to be left exposed for extended periods of time, pvc tape stringing may be used to hold product in place.

If your application/installation is outside these guidelines, please contact Fletcher Insulation prior to commencing the install to obtain written approval for your specific application.

Note: Glasswool insulation is not suitable for double brick cavity walls.

Retrofit application, view from beneath



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