

FirmaSoft™ Glasswool Batts

Applications: Walls and ceilings

Reference: FI_A0620, Dated 2nd June 2020

General

This installation guide applies to FirmaSoft™ insulation supplied in batt form.

- Check the centre to centre distance between studs and/or joists.

Distance between studs	Recommended batt width
450mm	430mm
600mm	580mm

- Calculate the area of insulation required, then calculate the number of packs required for the job.
- After unpacking, the product should achieve its nominal stabilised thickness within 24 hours.
- The performance of glasswool may be reduced if stored for too long in its compression packaging.
- The Material R-value indicated on the pack is determined at a mean temperature of 23°C as per AS/NZS 4859.1.
- The material R-value is independent of heat flow direction.
- The installed material R-value depends on installation quality and may be greater or less than the Material R-value of the product, gaps in the insulation and compressed insulation below the nominal thickness will result in a lower R-value.
- Ensure a snug fit is achieved when installing insulation between all frame elements, avoiding compression of insulation and any gaps.
- In metal framing the insulation shall be inserted into the open channel, while the external face of the metal studs must have a R0.2 thermal break applied, such as Fletcher Thermatape™.
- All insulation shall be installed in accordance with AS3999.
- Refer to the 'Caution' section printed on the product packaging, when installing near downlights, flues, electrical cabling or any other electrical or heat conducting item.

Important notes

Caution: when insulating around downlights or where recessed ceiling fixtures are present:

- Leave a minimum side clearance of 50mm from the body of heat emitting fixtures such as downlights, exhaust fans and flues.
- Cut a hole in the batt to suit the location of the fixture.
- Do not use small pieces of batts to form part of the barrier around a fixture as these pieces could dislodge and cover the fixture, potentially overheating or faulting the device. Use only large pieces of insulation that can be secured in position, where this is not possible fix a recessed luminaire barrier in accordance with AS3999 2015.
- Auxiliary equipment shall be located with a minimum clearance of 50mm from luminaires, refer to AS3999: 2015 – Appendix A for further details.
- For exhaust fans, leave a side clearance of at least 50mm, insulate around the perimeter of the fixture and ensure a piece of insulation batt does not stop a fan blade from turning, as this can overheat and burn out the device.
- Electric cables and equipment partially or completely covered with bulk thermal insulation may overheat and fail. Refer to AS3999-2015: Section 2.6 for details.

Tools

- Sharp knife with a plastic (non-conductive) handle for cutting insulation to size
- Cutting board or hard durable surface
- Tape measure
- Appropriate clothing and PPE (refer sections below)
- For ceilings and roof spaces – ladder, torch and kneeling board (to span 2 joists) and lighting
- A batt poker of a non-conductive material such as wood or plastic
- A staple gun with non-metallic staples
- String/twine (if stud and/or ceiling joist spacings are outside nominal widths)

PPE

When handling insulation materials, the following Personal Protective Equipment is recommended:

- Site specific PPE shall always be worn
- Suitable eye protection to AS1336 reduces the risk of eye contact with dust or fibres
- Loose fitting clothes, including long sleeved shirts, long pants, cap and gloves should be worn
- A dust mask is recommended when working in dusty areas
- Gloves are recommended, especially when cutting insulation
- Safety boots/shoes
- Wash your clothes separately and rinse the washing machine after use

Safety

- The mains electrical power must be turned 'Off' before installation, if you're in doubt how to turn the power 'Off', consult a licensed electrician.
- Assess the building structure and site for any safety issues prior to commencing work.
- Before entering a ceiling space make note of the location of electrical equipment in the ceiling such as downlights and exhaust fans.
- Working near electrical wiring is extremely dangerous, use caution to avoid touching any electrical cables, assume it is 'live'.
- Defective electrical cables, exposed terminals and conductors of electrical equipment such as light fittings and fans can cause burns and electric shocks please exercise caution when working near such hazards – check with an electrician if you are unsure if the cabling is safe
- Roof spaces can become very hot, particularly in warm weather. Get relief from the heat by taking breaks and drinking plenty of water to avoid dehydration
- When installing insulation, working at height can be dangerous, exercise caution when climbing ladders or accessing elevated platforms.

Flat ceilings

Installing Insulation prior to Ceiling Plasterboard (installing from below the roof cavity)

- Open one bag of insulation at a time.
- Commence work from one side of the room or house working your way across to the opposite side.
- Using a batt poker place ceiling batts into the frame.
- Friction fit the insulation ensuring no gaps between the insulation and ceiling joists.
- It is important that the insulation is secured so it cannot fall.
- String is optional and can be fixed to the underside of the ceiling joists before installing the insulation from below. String will be required where ceiling joists are not at nominal spacings
- Where string/twine is used, twine should be fixed between joists running at 90 degrees to the joists.
- Butt the batts closely together to ensure there are no gaps left at joints.
- Offcuts may be used to fill small spaces to ensure complete coverage.

Installing Insulation when Plasterboard Ceiling is installed (installing from inside the roof cavity)

- Place the insulation packs in the roof space and spread them around. Ensure they remain unopened at this point in time.
- 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 on ceiling joists only. Always check suitability of ceiling joists that they are safe to stand on.
- Place the kneeling board across at least two ceiling joists before kneeling.
- Ensure the product is dry, if the product is wet, replace before proceeding.
- Friction fit the batts between the ceiling joists.
- Butt the batts closely together to ensure there are no gaps left at joints.
- Continue until the entire ceiling area is covered and extending batts 50mm onto the external wall top plate. Ensure a clearance of not less than 25mm between batts and the tiles.
- 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.
- Allow batts to recover to their full thickness.
- Ensure the man-hole is completely covered with a cut to size batt.
- Restore power and remove the caution tag when the job is complete.

Raked ceilings

- For raked ceilings, the batts should be installed prior to fixing the plasterboard.
- The batts should be supported by string or twine running at right angles to the ceiling joists so they remain in place until the plasterboard is installed.

Brick veneer and lightweight clad walls

- Friction fit the insulation into the wall frames ensuring no gaps between the insulation and studs or noggings.
- It is important that the insulation is secured so it cannot sag or fall into the cavity or against the outer brickwork or cladding allowing moisture to pass from the exterior wall to the internal lining.
- Where required cut batt to suit the requirements of the width between the timber joists.
- Wall wrap is recommended and should be fixed across the exterior face of the frame before installing the insulation from the inside.
- Ensure that the batts do not protrude past the stud and fit snugly including where insulation is around water pipes or other rigid obstructions in the wall.
- Butt the batts closely together to ensure there are no gaps left at joints.
- Offcuts may be used to fill small spaces to ensure complete coverage.
- In non-tropical climates, a vapour permeable wall wrap or building membrane must be used to prevent the accumulation of moisture. Always check with the manufacturer of the cladding material for suitable characteristics of the building membrane.

Cavity brick walls (double brick)

- Glasswool insulation is not recommended for external wall full fill cavity applications.

Internal Partition Walls

- Friction fit the insulation into the wall frames ensuring there are no gaps between the insulation and studs or noggings.
- Ensure that the batts do not protrude past the stud and fit snugly.

For comprehensive installation instructions refer to the ICANZ Installation Guide which can be downloaded from www.insulation.com.au.

Note: 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.

© Fletcher Insulation Pty Limited 2019. Fletcher Insulation reserves the right to change product specifications without prior notification. Information in this publication and otherwise supplied to users as to the subject product is based on our general experience and is given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of products, no warranty is given or is to be implied with respect to either such information or the product itself, in particular the suitability of the product for any particular purpose. The purchaser should independently determine the suitability of the product for the intended application. Unless otherwise stated all ™ and ® are trademarks and registered trademarks of Fletcher Insulation Pty Limited ABN 72 001 175 355. IG15_Revision_0_Issue Date 02062020

**For more information call 1300 654 444
email info@insulation.com.au or web www.insulation.com.au**