

## ecoinsulation® Floorshield Thermal Underfloor

**These instructions should be read in conjunction with local standards AS 3999 or NZS 4246 and all applicable local, state and federal building regulations. Before you start installing, please make sure you are familiar with our Health and Safety Information contained in this document. Ensure that you use tools and equipment that are suitable for the intended application. This will include suitable safety equipment.**

### **Do not start work until the site is safe!**

Assess the underfloor condition and structure together with the method of installation you are to use based on the appropriate requirements established in the building code, site assessment and or plans provided. Installation must be completed to the requirements of relevant standard: AS 3999 or NZS 4246. When insulating any floors, care should be taken to ensure that sub floor ventilation is maintained according to AS/NZS 1860 or heed the recommendations of particleboard/timber flooring suppliers. Try and avoid staples made from metal or other conductive materials if possible. Installing underfloor insulation can be hazardous due to the working environment and electrical cables.

### **Tools required:**

- Sharp knife for trimming insulation
- Ladder or suitable scaffold
- Suitable clothing (see our Health and Safety Information)
- Tape measure
- Stapler or nailer

### **EXISTING FLOORS / INSTALL FROM BELOW THE FLOOR:**

- Calculate the number of packs required to complete the install.
- Ensure that you have the tools and personal protective equipment required to complete the job and you have read all safety instructions.
- The segments are manufactured at 420mm wide to suit most common joist centres. The segments should be a minimum of 10mm greater than the width of the cavity. This is to allow the product to friction fit between the joists.
- Before friction fitting each segment, ensure you identify any electrical cabling. Extreme care must be taken not to disturb or puncture any electrical wiring.
- The underfloor segments are friction fitted between the joists with the wind wash barrier facing down.
- Any excess material can be trimmed away by a sharp knife.
- When abutting insulation ensure there is a close, firm fit with no gaps.
- A clearance of 100mm should be left around all waste water pipes.
- Once installed the product should be strapped or supported with insulation saddles to provide additional long term durability.
- Strapping can be fixed with staples or where greater durability is required replace the staples with a galvanised clout.

### **NEW BUILD / INSTALL FROM ABOVE THE FLOOR:**

- In a new build or where the product is being installed from above the floor, it is recommended that you install supports prior to installing the segments. This can be achieved by using strapping or insulation saddles installed at a minimum of 90mm below the top of the joist.
- Support for each segment should be provided at the centre and at 200mm from each end.

## SAFETY WARNINGS AND HAZARDS

- You must turn the mains power "Off" before entering the work space, and, if in any doubt about how to turn the power "Off", you must consult a licensed electrician.
- Working in areas that contain live electrical wiring is extremely hazardous. Take extreme care to avoid touching any live overhead electrical lines, supply cables or any other live cables in the workspace.
- 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.
- Working in hot and poorly ventilated areas when installing insulation can be dangerous.
- Working at heights, when installing insulation can be dangerous.

## BEFORE INSTALLATION

- You must turn the mains power "Off" and, if in any doubt about how to turn the power "Off", consult a licensed electrician.
- Do not enter the workspace for the purposes of the pre-work inspection or the installation until you are satisfied that the power has been isolated. Even after isolating the power via the switchboard there may still be an electrical mains cable in either the ceiling or underfloor space that is live.
- Complete a pre-work assessment before installation to identify safety hazards which may include but are not limited to the following:
  - access to the roof area,
  - working at heights,
  - electrical safety hazards,
  - adequate ventilation of the work area and
  - nails and sharp objects on the ground
- Before commencing work you must have systems in place to reduce risks identified in the pre-work assessment such as but which are not limited to:
  - systems to prevent falling when working at heights.
  - ventilate the working area if possible.
  - cover exposed skin. When working in an unventilated area, wear a disposable face mask.
  - rinse hands in cold water before washing.
  - wear goggles when working overhead.
  - clean using vacuum equipment.

## DURING INSTALLATION

- Work with another person and maintain contact throughout both the assessment and installation process.
- Only open bags as required.
- Wear appropriate clothing for the job such as long sleeved top, flat rubber sole shoes, gloves conforming to Australian Standard AS2161 and ventilated non-fogging dust resistant goggles conforming to AS/NZ 1336, and a P2 dust mask.
- Avoid eye contact with dust or fibres to minimise eye or skin contact and inhalation during handling.
- Avoid installing insulation in hot weather and at the hottest part of the day.
- Under no circumstances must fixing devices in ceiling spaces or under floors, or in proximity to electrical wiring, be of metal or other conductive material.

## PROVEN PERFORMANCE

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed.

## ELECTRICAL SAFETY CONSIDERATIONS BEFORE ISOLATING POWER

- Locate and review the incoming power supply, main switchboard and meter box.
- Ensure you understand if there is a main isolator and how power can be safely isolated.
- Ensure you understand the direction of the "On" and "Off" position of the main switch (NOTE: the "Off" position is not always as it seems - check with an electrician if you are unsure).
- Before installation, switch "Off" the electricity supply at the main switchboard (check with an electrician if you are unsure if power can be turned "Off" at the switchboard).
- Be aware that even after isolating the power via the switchboard there may still be an electrical mains cable in either the ceiling or underfloor space that is live. Take extreme care to avoid touching any live overhead electrical lines, supply cables or any other live cables in the workspace.

## **PROCEDURE FOR ISOLATION - CERAMIC FUSES (IF IN DOUBT YOU MUST CONSULT A LICENSED ELECTRICIAN)**

- Ceramic fuses are typically found in older style homes.
- Identify if any fuse is deactivated.
- Check if there are any fuses currently in the "Off" position, take note of them.
- Place a strip of electrical tape over main switch isolator after it is turned "Off".
- Apply additional strips of electrical tape over the deactivated fuse and any individual isolator in the "Off" position as a reminder to leaving it in the "Off" position once the re-activation procedure has been completed.
- If you find a fuse plug out of its socket, whilst the main isolator is in the "Off" position, place electrical tape over its respective switch and one over the fuse socket opening.
- DO NOT touch the internal metal fittings.
- Place a written note on the main isolator switch or meter box enclosure to advise the power is "Off" and WORK IN PROGRESS is occurring.
- Check to ensure the lights and appliances, within the home, previously left on are no longer operating to confirm the mains power is now isolated.
- The original person who placed the isolation tag is the only one who can re-activate the power. Advise occupants of this requirement.

## **PROCEDURE FOR ISOLATION CIRCUIT BOARD (IF IN DOUBT YOU MUST CONSULT A LICENSED ELECTRICIAN)**

- Circuit boards are typically found in modern homes.
- Check if there are any switches currently in the "Off" position, take note of them.
- Place a strip of electrical tape over main switch isolator after it is turned "Off".
- Apply additional strips of electrical tape over any deactivated fuses or individual switches in the "Off" position after isolating the mains power as a reminder to leave it in the "Off" position once the re-activation procedure has been completed.
- Turn "Off" all individual switches on the circuit board.
- Place a written note on the switches or meter box enclosure to advise the power is "Off" and WORK IN PROGRESS is occurring.
- Check to ensure the lights and appliances within the home previously left on are no longer operating to confirm the mains power is now isolated.
- The originator that placed the isolation tag is the only one who can re-activate the power. Advise occupants of the requirement.

## **REACTIVATING THE POWER**

- After the completion of the installation, switch the mains power to the "On" position (for ceramic fuse board), but for a circuit board, switch the main power "On" and then each individual power isolator on one at a time. The taped switches in the "Off" position should stay switched "Off".
- **WARNING:** If you cannot reconnect power please ensure you seek assistance from a qualified electrician.

## **SUITABLE CLOTHING**

- When handling any insulation material, especially in enclosed poorly ventilated areas and/or overhead, the use of suitable eye protection conforming to AS/NZS 1336 will greatly reduce contact with dust or fibres.
- Wear suitable loose fitting clothes, including long sleeved shirts, long pants, cap and gloves.
- A suitable dust mask is recommended when working in confined, poorly ventilated and dusty areas.
- Wash work clothes separately and rinse the washing machine after use.