

## EARTHWOOL® GLASSWOOL INSULATION CEILING SEGMENTS – DOUBLE LAYER R-3.2 – R-6.4 SYSTEM

*For guidance on installations in Australia use AS3999  
and for New Zealand use NZS 4246 including amendments.  
Refer to our safety precautions at the end of this document before commencing work.*

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

Assess the ceiling structure and 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: AS3999:1992 or NZS4246:2006.

### **STEP 1**

- Ensure you have the right product for the application. Check the thermal resistance rating (R-Value) required on drawings/plans and that this matches the product selected. Check the joist width to determine the correct insulation width (e.g. 430mm or 580mm).
- Start from the furthest point-ensuring the top plate is covered and work back towards the access hatch of the ceiling.
- When installing, energise each segment by giving it a light shake and gently bouncing it on its side, ensuring the product expands to the thickness specified on the label.
- Place the first layer of R3.2 insulation between the joists.
- To avoid any tunnelling an use an off cut which shall be the same top width as that of the ceiling joist ( typically 50mm ) is required to be placed on top of each ceiling joists in between the first layer of insulation
- The off cut shall be of a suitable length so as to allow the second layer of insulation is installed over the top. This overlap shall be a minimum of 150mm.

### **STEP 2**

Earthwool glasswool insulation may be trimmed to appropriate sizes if required. Place insulation in accordance with AS 3999:1992 / NZS 4246:2006, ensuring appropriate clearances from recessed lights, extractor fans, chimney elements and piping as appropriate. Where possible, place insulation **under** electrical cables. Refer to relevant standard for guidance.

### **STEP 3**

Use any off-cuts to fill voids.

### **STEP 4**

Always make sure joins have good friction fits, with a uniform finished height of insulation. Refer relevant standard for reaching tight locations using assistance such as installing poles or other methods.

### **STEP 5**

Once you have completed your installation, including the lid of the hatch and or any recesses/internal walls, fix the label of the Earthwool glasswool insulation outer wrapper – showing the product details and thermal resistance rating – where it can be easily seen from the hatch for customer verification and retained for certification. It is recommended that once completed another team member checks the work to ensure it has been installed according to required standards.

## 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
  - tripping hazards.
- 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.
  - exhaust fans to provide adequate ventilation if required.
  - adequate protective clothing to avoid contact with hazardous materials and substances.

## DURING INSTALLATION

- Work with another person and maintain contact throughout both the assessment and installation process.
- 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.

## 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.

### 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.