

## CASE STUDY

## Te Hopai Home and Hospital



### PRODUCTS USED

Earthwool® glasswool: Ceiling, R5.2  
Earthwool glasswool: Wall, R2.8  
Earthwool glasswool: Roof blanket, R3.6

### PROJECT

Te Hopai Home and Hospital

### MAIN CONTRACTOR

Hawkins Construction Ltd

### ARCHITECT

CCM Architects  
Richard Almand and John Rogers

Richard Almand, designer of Te Hopai home and hospital said: "Te Hopai home and hospital is an aged care facility so it was important to ensure that the building and the materials used would contribute to a healthy living environment."

"It has been well publicised in New Zealand how poor quality housing can have a detrimental effect on the health of occupants, so by using high quality products such as Earthwool glasswool we were able to provide a comfortable environment."



## CHALLENGE

Te Hopai home and hospital is an aged care facility in Newtown, Wellington. It incorporates a Precast Seismic Structural System (PRESSSS) which required a resilient insulation product that could hold or bounce back to its shape and thickness after compression and movement.

The insulation used also needed to provide excellent acoustic performance to help aid reduction of noise transfer between adjoining rooms. It is understood that when adequate levels of acoustic insulation are present in hospitals, stress levels and medical errors are decreased significantly amongst staff and the patients recovery rates are improved. To provide a high performing acoustic solution in the internal walls, Earthwool® glasswool was chosen as it was proven to have a higher STC rating compared to other glasswool insulation products.

**Knauf Insulation**  
Building 1, Unit 2, 15 Accent Drive  
East Tamaki 2013, Auckland  
New Zealand

For further information contact:  
Tel: 0800 562 834  
Email: info.nz@knaufinsulation.com

[www.knaufinsulation.co.nz](http://www.knaufinsulation.co.nz)

KINZ1116475MIS

## SOLUTION

In the walls, Earthwool glasswool: Wall batts, R2.8, were used. Because the insulation is made using proprietary fiberisation technology it has longer, thinner strands, allowing for it to be compressed and then recover to its intended thickness. This therefore provided a high thermal solution that was compatible with the PRESSSS. The insulation will also hold its shape and will not slump to ensure high thermal performance for the lifetime of the building. What's more, Earthwool glasswool: Wall batts, R2.8 offer superior acoustic performance which meant it will reduce the transfer of sound between rooms creating a comfortable environment for the occupants.

In the ceiling, Earthwool glasswool: Ceiling batts, R5.2, and Ceiling blanket, R3.6 were used. The insulation levels in the ceiling are purposely higher than Building Code requirements to make the building future-proof to meet the performance requirements for the present as well as in the future.

Richard Almand, designer of Te Hopai home and hospital said: "Te Hopai home and hospital is an aged care facility so it was important to ensure that the building and the materials used would contribute to a healthy living environment."

"It has been well publicised in New Zealand how poor quality housing can have a detrimental effect on the health of occupants, so by using quality products such as Earthwool glasswool we were able to provide a comfortable environment."



## RESULT

Earthwool glasswool was used in both the walls and ceilings to meet the high thermal and acoustic performance requirements of the building. By using high levels of insulation, Te Hopai home and hospital is energy efficient, comfortable and a healthy and safe environment for occupants.

Earthwool glasswool is made using recycled glass and with ECOSE® Technology. ECOSE Technology is a revolutionary insulation binder that is based on rapidly renewable materials instead of petro-based chemicals. It contains no added formaldehyde, dyes or artificial colours, the earthy brown colour is completely natural.

Furthermore, Earthwool glasswool is non-combustible and comes with a 50 year warranty.

**KNAUFINSULATION**  
it's time to save energy