

HIGHTON, GEELONG - CASE STUDY

July 2021



SUMMARY

A resident of Geelong, Victoria, was looking to upsize his family's living conditions by constructing a new home on a 700m² lot in the suburb of Highton. The homeowner was a registered builder and therefore knowledgeable about what elements were needed to create a high-quality home. Thermal and acoustic performance levels were important to guarantee maximum comfort in this modern, two-storey family home. The home was a new build, which meant the owner needed to source and install every component himself, right down to the insulation. By selecting Knauf Insulation's Earthwool® product range, the builder was able to install most of the insulation in a single day.

Products Used: Earthwool® R 2.7 SoundShield Plus wall batt
Earthwool® R 4.0 wall batt
Earthwool® R 6.0 ceiling batt

Application: Ceiling and Walls

Construction type: Residential - House

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WHAT WAS THE CHALLENGE?

challenge.



As part of the home's modern design, large windows featured prominently. While this was designed to maximise natural light, it would also make the interior more susceptible to the change in seasonal temperatures during summer and winter. The owner was therefore eager to ensure the house had a high thermal performance while being as sustainable and energy efficient as possible. The home's layout also featured several awkward angles that required insulation to meet specific sizes to fill these spaces, which limited the owner's insulation options. As the installation was planned over Easter, there were also limited contractors or professional installers available, which meant the job would need to be DIY by the owner in order for construction to remain on schedule.

WHAT PRODUCTS WERE USED?

create.



The homeowner selected Knauf Insulation's Earthwool® product range for the entire home. Earthwool® R 2.7 SoundShield Plus was installed in the interior walls, Earthwool® R 4.0 wall batt was installed underneath the mid floor between the ground and first floors, and Earthwool® R 6.0 ceiling batt was placed in the ceiling cavity. Emphasis was placed on insulating the walls between the bedrooms and bathrooms to enhance the acoustic performance between these areas of the house. Earthwool® is made using up to 80 per cent recycled glass and with ECOSE® Technology, a sustainable, bio-based binder that contains no added formaldehyde. Due to this high level of recyclability, Earthwool® saves hundreds of times more energy in use over its lifetime than required to manufacture. This was significant to the homeowner, who wanted to ensure a high level of sustainability for the new home.

WHAT WAS THE RESULT?

care.

With the help of friends and family members, the homeowner was able to accomplish a DIY install of Earthwool® throughout the entire house, with the majority being completed in a single day. Knauf Insulation's proprietary fiberisation technology results in longer and more flexible strands of glasswool and, when combined with ECOSE® Technology, makes it much softer to handle. "I've used it before and found it really easy to use. It's easy to cut, handle and install," the homeowner said. "We got most of it done in a single day. It's definitely not as itchy as some of the other insulation products I've used in the past. "I also want to do my bit for the environment, so I like the fact that it's made from recycled products."

Earthwool® has more flexible strands which made it easier to cut and manipulate into the home's trickier angles, allowing full insulation across the entire layout. It was also successfully installed between the walls that separate the bathrooms and bedrooms, allowing it to absorb the sound from these areas and limit noise transfer between each room.

Earthwool® also enhances the home's thermal performance by absorbing the heat or cold that is transferred through the windows from outside, providing the homeowner with a comfortable living environment.

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