

# BE IN THE KNOW NOW

The changes to the H1 energy efficiency code you need to know.

## FREQUENTLY ASKED QUESTIONS:

Knauf Insulation answer a few FAQs how of their ecoinsulation® glasswool range can help you implement these changes.

### 1. What is EcoInsulation glasswool made from and where is it made?

Ecoinsulation® products are manufactured from up to 80% post-consumer recycled glass bottles, sand and ECOSE® Technology — a modern biobased binder which has no added formaldehyde. ECOSE® Technology gives a distinctive look to EcoInsulation® products — a natural brown, with no added dyes or artificial colours. Products are also less dusty and have a much softer feel whilst retaining their rigidity.

All Ecoinsulation® products are manufactured by well-known and trusted German brand —Knauf Insulation in the Malaysian factory, which is located in Johor Bahru. The manufacturing process enjoys outstanding sustainability credentials and features some of the most efficient technology available on the market today. Emissions from shipping and transporting products to their destination in New Zealand are minimised thanks to unique compression packaging, which allows us to deliver a high volume of products per shipment.

### 2. When installing insulation what consideration needs to be taken in regard to downlights, wires, pipes etc?

Most modern downlights can be surrounded and covered with insulation and don't need clearances. You still need to check the lighting manufacturers instructions to ensure that the light and the driver unit can be covered. When installing in existing homes where you don't know what the downlights are, it is recommended to leave a minimum side clearance of 25 mm from the body of heat emitting fixtures such as downlights, exhaust fans and flues. Cut a hole in the insulation 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 covering the fixture. Use only large pieces of insulation that can be secured in position, where this is not possible fix a recessed luminaire barrier.

### **3. Does there have to be separation from touching the roof in a skillion roof?**

No not all system require a separation, but these are proprietary systems that are normally detailed by membrane and roof system suppliers. The NZBC acceptable solutions do require a 25mm air gap, so all the skillion roof products have been designed to match the joist height and maintain that 25 mm air gap. They are generally high in density and have been engineered so they won't over loft.

### **4. Is it easy to cut the EcoInsulation R7.0 Ceiling Batt?**

Yes, it is very easy to cut, we recommend using a straight edge, lightly compressing the product and cutting it with a sharp utility knife.

### **5. In roof truss framing how would you install insulation at the eaves junction?**

We are hopeful that designers will start to specify heal truss designs to accommodate the additional insulation thickness required to achieve R6.6. However, MBIE have allowed for a reduction to R3.3 for 500mm from the top plate, this should help accommodate insulation at the eaves.

### **6. What is the wind barrier on the new underfloor insulation product and what does it do?**

Ecoinsulation® underfloor batt is manufactured from durable silicone coated glasswool and is faced with an ECOSE® glass veil, providing a wind-wash barrier. The wind-wash barrier provides protection from air movement under the floor to ensure the insulation will perform as per the stated the R-value. Ecoinsulation® underfloor batt will improve the thermal comfort and energy efficiency of the building in which it has been installed thus keeping it cool in summer and warm in winter.

### **7. With the insulation being thicker, will it lose its form/shape over time?**

No, they won't lose performance over time. Glasswool products have a very long history of use and are guaranteed to maintain their thermal performance in line with the durability requirements of the building code. The New Zealand building code is unique in that there is a durability requirement. We use BRANZ Appraisals and CodeMark certification to demonstrate compliance with the Building Code requirement and to demonstrate that the products are fit for use. BRANZ is an independent and impartial research, testing and consulting organisation that has an in-depth knowledge of the New Zealand Building Code.

### **8. Does insulating and airtightness cause mould and ventilation problems?**

No, as it is non-hydroscopic — the insulation absorbs and holds practically no moisture from the air around it so doesn't support mould growth. As we build with higher R-values and greater air tightness it is important to consider ventilation. When considering the upgrade to H1 MBIE made careful consideration of these issues. Under the current building code and H1 requirements current construction methods can be maintained. But higher level of insulation and air tightness should consider ventilation moisture controls.

### **9. New houses are now very hot over summer. Will this mean more energy on air conditioning?**

It is true that well insulated homes when left closed up can suffer from solar gain and be hotter than the ambient temperature outside, but with good planned ventilation, as well as with opening doors and windows this can be quickly rectified. from that point you can further cool the house using air

conditioning and take comfort in the knowledge the insulation is now efficiently working to keep the heat out and your cool air in.

#### **10. Is the H1 calculator currently live?**

At the time of writing the H1/AS1 calculator created by Knauf Insulation is not yet live. The core function of the calculator was to allow very quick simulation of various R-value combinations to illustrate various ways to achieve compliance. If you are interested in previewing the calculator or have feedback re: how you may find it useful please let us know at [info@knaufinsulation.co.nz](mailto:info@knaufinsulation.co.nz).

#### **11. Are the new products available to order now?**

The new products showcased will be available to order in the near future — in order to receive an update as soon as they are available, register your details here — <https://bit.ly/ecoinsulation-h1>

#### **12. If I want to create high performance walls to offset a lower R-value in the ceiling or skillion roof, how do I do it?**

Ecoinsulation® has developed a range of High R-value wall products that can be used in 140mm framing. We have also developed a 45mm R 1.3 product which can be used in an additional insulation cavity on the inside of your existing 90mm frame.

#### **13. How do I get the thick / high R-value products over the top plate at the eaves?**

We are expecting that designers will opt for a heal truss which increases the space at that point. We appreciate that this is not always possible and MBIE and H1 have made allowance for product R-values to be reduced to R 3.2 for 500mm at the eaves.

For more details visit: [www.knaufinsulation.co.nz/](http://www.knaufinsulation.co.nz/)