

**KNAUF**INSULATION



# **THE ECOSE<sup>®</sup> DIFFERENCE**

For safe, healthy, and sustainable buildings.

**Build on us.**

# *Material choices matter more than ever.*

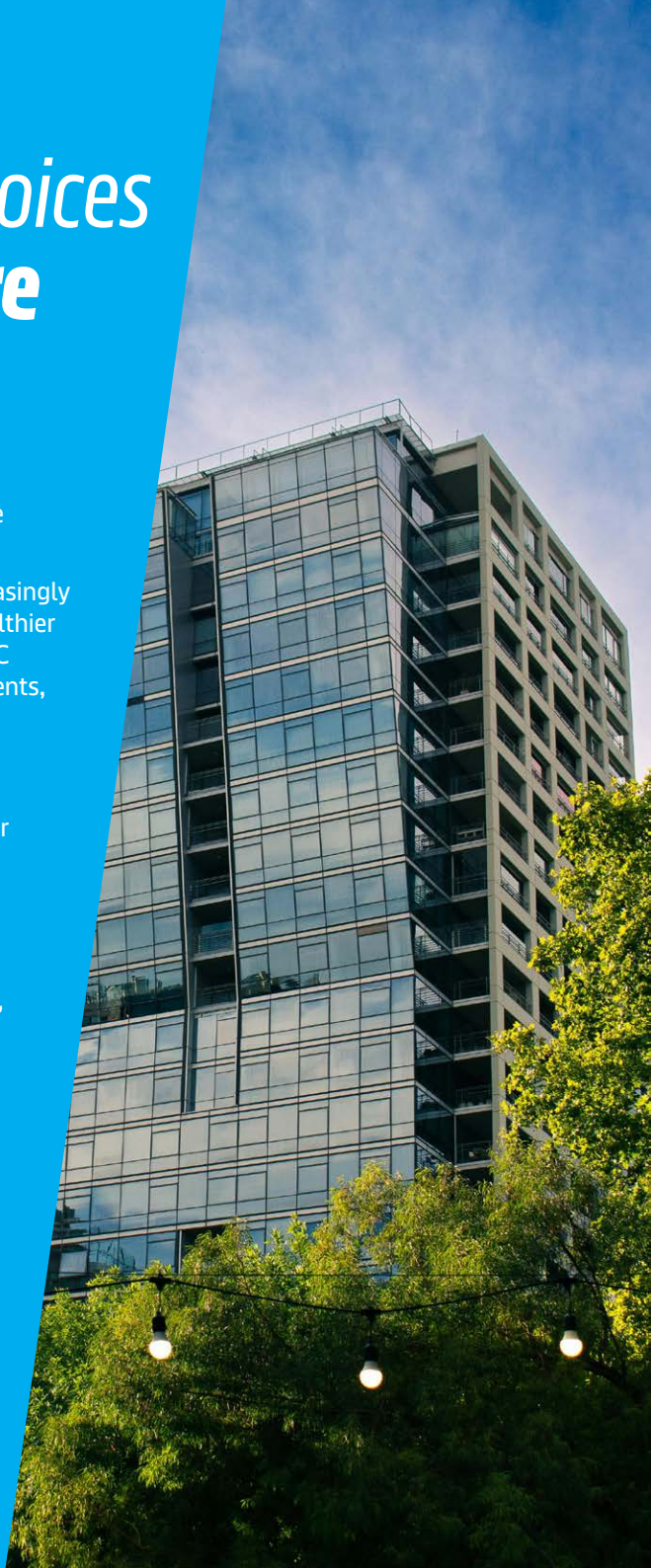
Today, insulation is about far more than thermal performance alone.

Architects and specifiers are increasingly seeking materials that deliver healthier indoor environments with low VOC emissions and no Red List ingredients, while also supporting the drive to reduce embodied carbon.

At the same time, installers are looking for products that are easier and faster to work with on site.

The result is a new standard for insulation—one that balances performance, sustainability, wellbeing and ease of installation, without compromise.

In the manufacture of glasswool and rock mineral wool insulation a binder is used to hold the fibres together and give the insulation its shape and structure. There are different types of binders derived from various sources.



# What is ECOSE®?



ECOSE is Knauf Insulation's unique plant-based binder used in the manufacture of glasswool insulation. It is **low-carbon** and **low-VOC**, so it can be used to **create better buildings** – for occupiers, for installers and for the planet.

ECOSE provides the proven **sustainability performance the industry needs**, backed up by extensive testing and certification.

ECOSE is just one small element of our product proposition, but it **makes a big difference**.

## The core benefits of ECOSE are:



It contributes to our low-carbon insulation products, so our customers can create more sustainable buildings.



It reduces VOC emissions, so our customers can create healthier buildings and worksites.



It makes our products easier to work with, so our customers have a better installer experience.



# **Improved indoor air quality**

*Breathe the ECOSE® difference. Low VOC for improved indoor air quality.*

Better indoor air quality is essential for healthy, comfortable living. Low-emission building materials help reduce pollutants and allergens, supporting easier breathing, improved wellbeing and more productive, enjoyable spaces for occupants.



## **Products made with ECOSE are low-VOC.**

They were the first to be awarded the Eurofins Indoor Air Comfort Gold certification, the highest possible standard. This means they are independently tested and verified to meet or exceed a wide range of national mandatory and voluntary product emissions standards.



## **They feature no added formaldehyde or other harmful chemicals.**

Products made with ECOSE are certified to be free from any of the chemicals known to pose serious risks to human health on the internationally agreed DECLARE 'Red List'. Our glasswool products were the first to achieve the DECLARE 'Red List Free' label.



## **Plus, they earn credits under green building rating schemes.**

ECOSE helps designers earn additional points under green building rating schemes, such as LEED, Green Building Index (GBI) and the Green Mark Certification Scheme.



**ECOSE® has been making a difference for over 15 years.**

ECOSE was first launched in 2009. For over 15 years, the ECOSE difference has helped to create better buildings – better for occupiers, better for installers and better for the planet.



Its positive impact has been **extensively tested** and **certified**. **Products made with ECOSE meet some of the most stringent international standards, including:**



**Declare.**



## ***Proven performance***

***Trust the ECOSE difference. Proven performance for better buildings.***





## **Reduced embodied carbon**

**Make** the ECOSE® difference. *Low carbon for better buildings.*

Buildings account for almost 40% of global carbon emissions. By reducing this it can cut energy use and costs, and support net-zero target while also creating healthier, more future-ready spaces.



### ***ECOSE is a low-carbon binder.***

ECOSE is predominantly plant-based (up to 98%), made from rapidly renewable sources. Because it is manufactured using biogenic sources of carbon and plants take up CO<sub>2</sub> through photosynthesis, it has a lower carbon footprint than traditional binders.



### ***ECOSE contributes to our low-carbon insulation products.***

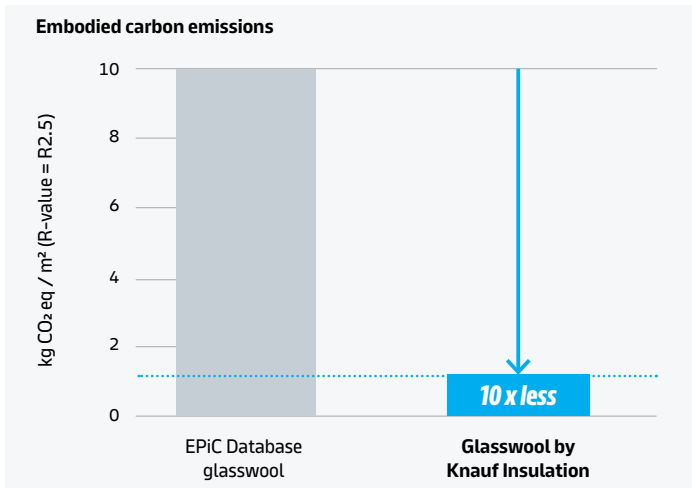
By reducing the embodied carbon of our binder, ECOSE makes an important contribution to the overall sustainability of our products. It significantly reduces upfront embodied carbon at the raw materials stage.

# Environmental Product Declarations



The only way to be sure of a product's embodied carbon and wider environmental impact is to check its Environmental Product Declaration (EPD). Product-specific EPDs provide a clear breakdown of details like raw materials, manufacturing, packaging and waste, that contribute to a product's sustainability.

When compared with the average glasswool insulation from Australia's EPiC database, **glasswool by Knauf Insulation is ten times lower in embodied carbon.\***



\*A glasswool insulation product from the EPiC database, with a functional unit of 1m<sup>2</sup>, 100mm thickness and an R-value of R2.5, has 10.1 kg CO<sub>2</sub> eq embodied carbon. The equivalent glasswool by Knauf Insulation has 1.22 kg CO<sub>2</sub> eq embodied carbon. Source: Crawford, Robert. EPiC Database. The University of Melbourne. Collection, 2019

As part of our sustainability strategy, Knauf Insulation is committed to measuring and reducing the environmental impact of our products, as well as reporting these impacts in a transparent way.

**This is why we have published Environmental Product Declarations (EPDs).**





## ***A better installer experience***

***Feel the ECOSE® difference. Easier to handle for a better installer experience.***

Installers spend around a third of their working day exposed to various building materials. They deserve an **insulation experience without compromise.**



### ***Products made with ECOSE are low-VOC.***

They are independently tested and verified to be free from any of the chemicals known to pose serious risks to human health on the internationally agreed DECLARE 'Red List'.



### ***Products made with ECOSE create a more pleasant installer experience.***

Customers tell us they are less itchy or irritating than those made with traditional binders, and they generate low levels of dust.



## Softer feel

More than 90% of professional installers stated that Knauf Insulation's glasswool with ECOSE® Technology has a softer feel and is less itchy compared to conventional glasswool.

***"This is great stuff! It doesn't make my skin itch; I can't believe that this is glasswool."***

Our glasswool insulation uses breakthrough proprietary fiberisation technology from Knauf Insulation. Longer more flexible strands of glass combined with ECOSE Technology makes it much softer to handle.



## Odourless

ECOSE makes our glasswool products odourless. More than 80% of installers stated that they prefer the neutral smell of Knauf Insulation's glasswool over the smell of traditional glasswool made using formaldehyde.

***"You really cannot smell it. It's definitely an improvement over the smell of traditional glasswool and makes the product more pleasant to work with."***



## Easy to cut

The majority of installers also indicated an ease in cutting glasswool with ECOSE.

***"I prefer this product because, quite simply, it's easy to work with."***

Knauf Insulation conducted installer trials throughout Europe featuring over 500 individual installers. These were organised using both internal and external coordinators, including Gruppe Nymphenburg Consult AG.

# The ECOSE® difference

You can always tell when it's Knauf Insulation.

The distinctive natural colour of our products is more than just an easy way to tell it apart from other glasswool.

It's thanks to ECOSE, our unique plant-based binder that doesn't just make it different - it makes a difference.

## ***Traditional glasswool binder***

- ⊗ Artificial colour
- ⊗ Petro-chemical based
- ⊗ Added formaldehyde
- ⊗ Energy intensive
- ⊗ Unpleasant to touch



**KNAUF**INSULATION

**EARTHWOOL**  
*the feel good glasswool insulation*



## ***Knauf Insulation glasswool***

with **ECOSE**<sup>®</sup>  
TECHNOLOGY



**Natural colour**



**Plant based**



**Low-VOC**



**Low-carbon**



**Easy to handle**



**Worldwide patented  
technology by  
Knauf Insulation**

To find out more about our products  
made with ECOSE<sup>®</sup> visit  
[www.knauf.com](http://www.knauf.com) or scan the QR code



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**Build on us.**