The Power of Mineral Wool Insulation is as Strong as Ever Even 55 Years After Installation

The energy-saving power of mineral wool insulation is as strong as the day it was installed — even after 55 years of use — according to independent research commissioned by the European Insulation Manufacturers Association (Eurima).

The Research

FIW München, one of Germany’s leading building material research institutes, carried out detailed laboratory tests to examine the thermal performance of mineral wool insulation that had been installed in seven different buildings across Europe between 1960 and 1995.

The Results

The research found that the age of the mineral wool insulation had no impact on its performance. The thermal conductivity measurements gave values between 32 and 38 mW/(m.K), showing that the product performance after a very long service time is still better than the original declared values.
The Criteria

The study focused on mineral wool insulation that had been correctly installed more than 20 years ago in seven buildings across Germany, Lithuania, Denmark and Switzerland. Mineral wool samples from four walls and three roofs were taken by independent third parties and sent to FIW’s laboratories.

The condition of every building site was also documented by FIW and each sample was carefully sealed and packed to ensure accurate humidity monitoring. Once delivered to the laboratories, the insulation was evaluated as fast as possible to avoid any sample changes.

The Conclusions

FIW’s report concluded: “The mineral wool insulation in the building constructions examined after a useful life of 20 to 55 years are in every case fully functional and showed excellent thermal performance properties. For all the identified products measured, the thermal conductivity was better or almost similar to the declared value at the time of production.”

Eurima’s assessment

Eurima’s Director General Jan te Bos commented: “Our new research highlights that if mineral wool insulation is installed correctly, it will continue to perform as promised for decades.”

“Resource efficiency and product durability are the cornerstones of sustainable construction and this study demonstrates to both the industry and regulators that mineral wool continues to save energy and reduce building emissions over its entire lifecycle.”

Summary of the thermal conductivity measurements (presented in blue) in comparison with available values of the corresponding product information sheets from the time of production (in red)