



## **PIMA Releases Research Report on the Effect of Roof Traffic and Moisture on Roof Insulations**

*Testing conducted on both European and North American mineral wool roof insulation raises questions regarding performance*

**WASHINGTON, DC, August 18, 2015** – The Polyisocyanurate Insulation Manufacturers Association (PIMA) today announced the release of a research report suggesting that low-slope roofs using popular single-ply roof coverings may not be suitable for the use of mineral fiber (also known as mineral wool or rock wool) board insulation when subject to roof traffic and/or moisture accumulation.

The PIMA report, titled “The Effect of Roof Traffic and Moisture on Roof Insulations,” was developed as a follow-up to previous research studies from Europe that evaluated the performance of mineral fiber subjected to a combination of simulated roof traffic and increased roof moisture content. The study suggests that moisture vapor may significantly reduce the compressive strength of mineral fiber insulation leading to a significant increase in overall roofing failures.

The research report concludes that:

- After exposure to 95 percent humidity for 48 hours, single-ply roofing assemblies installed over two different types of rigid mineral fiber board insulation lost over 85 percent of their initial compressive strength when tested for only 5 cycles of a walkability test, recently developed in Europe to evaluate the effects of roof traffic on roofing systems.
- Based on this observed loss of compressive strength, all of the roofing assemblies tested were rated as “Not Suitable” for roof traffic using a classification protocol developed in conjunction with the walkability test.
- The reduction in walkability observed in this testing was slightly mitigated by increasing the thickness of the single-ply roof covering, but the benefit appeared to be minimal.

“It is well known that moisture may collect inside roofing systems either from internal condensation or from external leaks,” said Jared Blum, President of PIMA. “As a consequence, the presence of water vapor inside roofing assemblies may be relatively commonplace. The data from this study, combined with prior work done in Europe, suggest that moisture vapor may significantly reduce the compressive strength of mineral fiber insulation. As a consequence, great care should be taken when using mineral fiber insulation if any significant level of roof traffic and/or internal moisture is anticipated.”

A copy of the research report, “The Effect of Roof Traffic and Moisture on Roof Insulations” is available for download at PIMA’s website ([www.polyiso.org](http://www.polyiso.org)) and is also available from PIMA members.

### **About Polyiso**

Polyiso is a rigid foam insulation used in over 70 percent of commercial roof construction, in commercial sidewall construction and in residential construction across North America.

### **About PIMA**

For over 25 years, the Polyisocyanurate Insulation Manufacturers Association (PIMA) has served as the unified voice of the rigid polyiso industry, proactively advocating for safe, cost-effective, sustainable, and energy-efficient construction. PIMA’s members, who first came together in 1987, include a synergistic partnership of polyiso manufacturers and industry suppliers. Polyiso is one of the nation’s most widely used and cost-effective insulation products available. To learn more, visit [www.polyiso.org](http://www.polyiso.org).

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