

Storage and Handling Recommendations For Polyiso Roof Insulation

PIMA Technical Bulletin #109

Polyiso insulation presents many superior features that designers need when specifying insulation for use in roof systems:

- Quality Mark™ certified LTR-values
- Highest thermal performance available
- Excellent fire test performance
- Dimensional stability
- Superior compressive strength
- Moisture resistance
- Extensive building code approvals
- Zero ozone depletion potential
- Negligible global warming potential
- Cost effective
- Preferred insurance ratings
- Recycled content
- Compatible with most roofing systems

PIMA and polyiso products have received many environmental awards. These include an honorable mention in the Sustainable Buildings Industry Council's (SBIC) 2003 "Best Practice" Sustainability Awards Program and the U.S. EPA's Climate Protection Award for the association's leadership in promoting energy efficiency and climate protection. The EPA also awarded PIMA and its members the Stratospheric Ozone Protection Award for "leadership in CFC phase-out in polyiso insulation and in recognition of exceptional contributions to global environmental protection."



Storage

Polyiso insulation is typically shipped to the jobsite protected by a plastic wrap, plastic bag or both. This factory packaging is intended for handling the polyiso in the manufacturing plant and during transit; it should not be relied upon as job site protection from the elements unless specified otherwise by the manufacturer.

Material delivery should be carefully coordinated with the roof application schedule to minimize job site storage.

When short-term job site storage is necessary, whether at grade or on the roof deck, the following precautions should be observed:

- Place the package on raised pallets or platforms (at least 4 inches [102 mm]) above ground and store flat. If possible, the pallets should be placed on a finished surface rather than on dirt or grass.
- Unless specified otherwise by the manufacturer, cover the package and pallet with a waterproof, breathable cover such as a canvas tarpaulin.

PIMA members do not recommend that polyiso roof insulation be stored at the job site for extended periods. If polyiso needs to be stored more than two weeks prior to installation, it should be stored indoors in a dry, well-ventilated warehouse.

Handling

Exercise care during handling of polyiso insulation to prevent breaking or crushing of the square edges and surfaces. Remove the polyiso bundles from trucks with proper equipment. Other means of mishandling, such as pushing pallets off the edge of the truck or "rolling" the pallet across the roof deck, must be avoided.

Product Application

Polyiso should always be installed on dry, clean roof decks in dry conditions. Follow the manufacturer's recommendations regarding product application to ensure performance to the intended design life of the roofing system. Apply only as much polyiso roof insulation as can be covered by the completed roofing the same day. Roof insulation that has become wet, damaged, cupped, or bowed must be replaced with solid, dry insulation.

Construction Traffic

Avoid excessive traffic during roof construction or on a completed roof surface. Although polyiso has been designed to withstand normal foot

traffic, protection from damage by construction traffic and/or abuse is extremely important. Roof surface protection such as plywood should be used in areas where storage and staging are planned and heavy or repeated traffic is anticipated during or after installation.

Some designers and membrane manufacturers specify the use of cover boards as a means of protecting the insulation. If specified, installers should ensure that the cover board used is compatible with all components of the roofing system, is acceptable to the membrane manufacturer, and meets specified fire, wind, and code requirements.

Final Thoughts

Polyiso roof insulation, like other roofing materials, requires a proper understanding of storage, handling, and application to result in a well-constructed and satisfactorily performing roofing system.

PIMA

The Polyisocyanurate Insulation Manufacturers Association (PIMA) produces technical bulletins in an effort to address frequently asked questions about polyiso insulation. PIMA's technical bulletins are published to help expand the knowledge of specifiers and contractors and to build consensus on the performance characteristics of polyiso. Individual companies should be consulted for specifics about their respective products.

The Polyisocyanurate Insulation Manufacturers Association (PIMA) is the North American trade association that advances the use of polyisocyanurate (polyiso) insulation. Polyiso is one of the nation's most widely used and cost-effective insulation products available.

PIMA's membership consists of manufacturers of polyiso insulation and suppliers to the industry. Our members account for a majority of all of the polyiso produced in North America.

SAFETY

Polyiso insulation, like wood and other organic building materials, is combustible. Therefore, it should not be exposed to an ignition source of sufficient heat and intensity (e.g., flames, fire, sparks, etc.) during transit, storage, or product application.

Consult the product label and/or the PIMA members' Material Safety Data Sheets (MSDS) for specific safety instructions. Follow all regulations from OSHA, NFPA and local fire authorities.

For more information on polyisocyanurate insulation, visit www.polyiso.org



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