

Perlite/High-Density Perlite

Description: Perlite roof board is a rigid insulation material manufactured from expanded volcanic minerals combined with organic fibers and waterproofing binders. The top surface is treated to minimize bitumen absorption and to improve the bond with roofing materials.

Standards: ASTM C728. Perlite is available in three basic product formulation types. The first type is the perlite panel consisting of approximately 45% cellulose binder. This formulation is typically manufactured in 1/2-inch panel sizes. The second type is typically formulated with approximately 25% cellulose, and is commonly manufactured into a 3/4-inch or greater panel thickness. The third type is a higher density panel sealed with a special polymerized asphalt emulsion coating over the top surface, which is specifically designed to receive membranes that are torch applied.

Panel Application Methods:

1. **Asphalt:** Perlite panels, having a thickness of 3/4 inch or greater, can be applied in hot asphalt. Perlite panels, having a thickness of 1/2 inch, are not approved for application in hot asphalt.
2. **Mechanical Attachment:** Perlite panels, having a minimum thickness of 1/2 inch, can be mechanically attached. When perlite is mechanically attached over a metal deck, the panel thickness must be sufficient to span the flutes of the metal deck. Siplast minimum fastening requirements call for 1 fastener per 2 square feet of panel area. See published schematics for fastening frequencies. Contact Siplast for fastening frequencies to meet specific codes/approvals.
3. **Insulation Adhesive:** Contact Siplast for approved applications using insulation adhesive.

Membrane Application Direct to Insulation:

Approved hot asphalt: Approved

PA-311 Adhesive: Approved

SFT Adhesive: Approved

Torch¹: Torch application to minimum 1/2-inch DuraBoard (high density perlite) by Johns Manville can be accomplished following special techniques designed to keep the flame on the roofing product and away from the insulation surface. Flame concentrated directly on high-density perlite panel surfaces may compromise membrane adhesion.

Self Adhesive: Not approved.

¹Siplast recommends that all practices pertaining to NRCA CERTA guidelines be followed when torching methods are employed. This includes performing a fire watch following any torch applications. Always have approved fire-extinguishing equipment nearby.