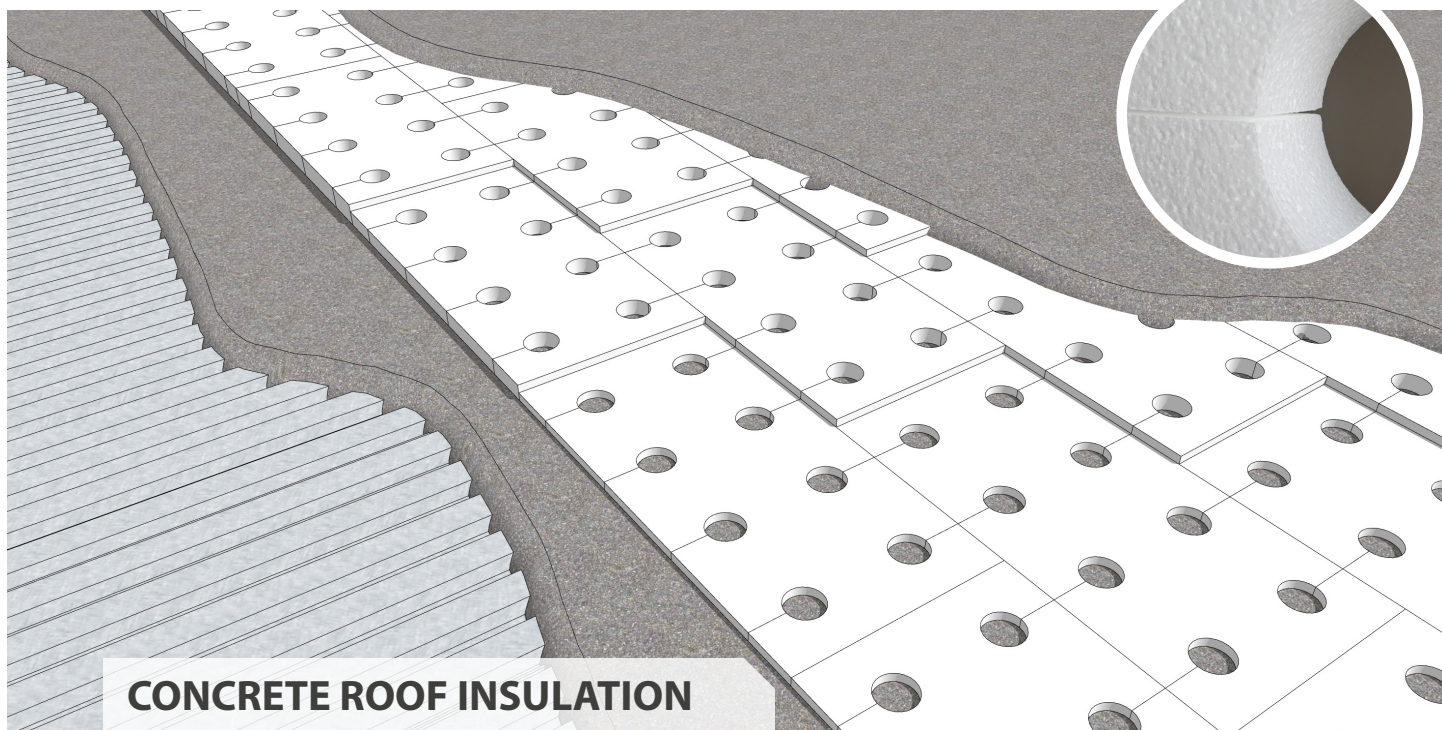


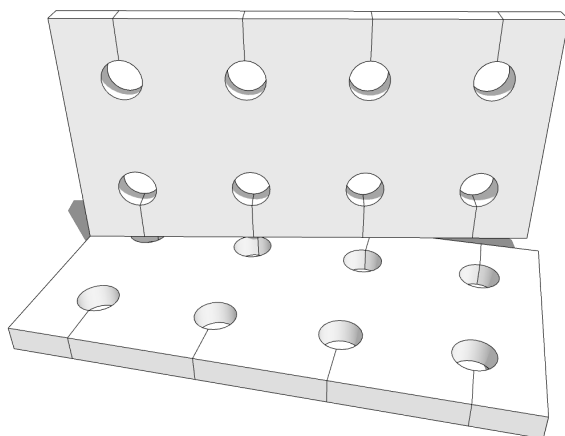
# Holey Board Rigid Insulation



## CONCRETE ROOF INSULATION

Holey Board (HB) is custom cut foam board made from closed cell, Expanded Polystyrene (EPS) with factory cut holes offering cost effective performance. Holey boards are designed to be used as part of lightweight insulating concrete (LWIC) roof systems that incorporate the use of cellular, perlite or vermiculite concrete.

Holey boards are fully encapsulated in the lightweight concrete and often serve as the primary insulation in the roof assembly. Can be used in both new and retrofit applications.



## Alleguard Advantage

- Stable long term thermal resistance.
- Each panel is easy to handle due to the low weight, small size and can be easily cut.
- Holey board can also be manufactured in various thicknesses to create a sloped surface by stair stepping the insulation.
- Increased thermal resistance in lower temperatures.
- No off-gassing and does not contain HFCs, CFCs or HCFCs.
- Product may contain reprocessed (regrind) material for improved sustainability.
- Does not promote growth of mold and mildew.

**Availability**

Holey Board comes as a 2x4' (610x1219mm) panel with thickness ranging from 3/4" (19mm) to 16" (406mm). Custom board sizes, hole sizes and pattern are available for special order.

**Applications**

- Flat lightweight insulated concrete (LWIC) roof systems
- Ideal for use in coastal areas
- Compatible with metal deck, precast concrete or poured in place slab
- Compatible with single-ply or built-up roofs
- Compatible with adhered or ballasted roof systems

The maximum continuous operating temperature for Holey Board is 158°F (70°C). EPS exposure to ultra violet (UV) is limited to a thin layer causing slight discoloration and surface dusting. The material underneath remains unaffected maintaining its properties. Prolonged exposure may cause minimal reduction in thickness. To avoid adhesion issues, apply the material right after board installation or remove the UV affected material by brushing/rasping the surface to expose unaffected EPS (avoid hydrocarbons and petroleum based products).

**Warranty**

Alleguard supports building owners, designers and contractors by offering a 20-year, limited thermal warranty on the Holey Board product line. This warranty is available to the building owner at the time the building is completed and is transferable to any subsequent owner during the 20-year period.

**Physical Properties Table**

|   | Standard                    | Units   | HB10          | HB13          | HB15 (HD)     | HB20 (HD)     | HB25 (HD)     |
|---|-----------------------------|---|---------------|---------------|---------------|---------------|---------------|
| Specification for Rigid Polystyrene Insulation      | ASTM C578                   |   | Type I        | Type VIII     | Type II       | Type II       | Type IX       |
|   | CAN/ULC-S701                |   | Type 1        | Type 1        | Type 2        | Type 2        | Type 3        |
| Thermal Resistance <sup>1</sup>                     | ASTM C518<br>@ 75°F (24°C)  | F.ft <sup>2</sup> .hr/Btu<br>(m <sup>2</sup> K/W) | 3.9<br>(0.69) | 3.9<br>(0.69) | 4.0<br>(0.70) | 4.2<br>(0.74) | 4.3<br>(0.76) |
| Compressive Strength                                | ASTM D1621<br>@ 10% Strain  | psi<br>(kPa)                                      | 10<br>(69)    | 13<br>(90)    | 15<br>(104)   | 20<br>(138)   | 25<br>(172)   |
| Water Absorption (Max.)                             | ASTM D2842                  | %   | 4.0           | 3.0           | 3.0           | 3.0           | 2.0           |
| Water Vapor Permeance (Max.) <sup>1</sup>           | ASTM E96                    | US perms<br>(ng/Pa.s.m <sup>2</sup> )             | 5.00<br>(287) | 3.50<br>(200) | 3.50<br>(200) | 3.5<br>(200)  | 2.27<br>(130) |
| Flexural Strength (Min.)                            | ASTM C203                   | psi<br>(kPa)                                      | 25<br>(173)   | 30<br>(208)   | 35<br>(242)   | 35<br>(242)   | 50<br>(345)   |
| Dimensional Stability (Max.)                        | ASTM D2126                  | %   | 1.5           | 1.5           | 1.5           | 1.5           | 1.5           |
| Limiting Oxygen Index (Min.)                        | ASTM D2863                  | %   | 24            | 24            | 24            | 24            | 24            |
| Density   | ASTM D1622                  | lb/ft <sup>3</sup><br>(kg/m <sup>3</sup> )        | 1.00<br>(16)  | 1.15<br>(18)  | 1.35<br>(22)  | 1.50<br>(24)  | 1.80<br>(29)  |
| Surface Burning Characteristics                     | ASTM E84 <sup>2</sup>       |   |               |               |               |               |               |
|   | Flame Spread Index (FSI)    |   | ≤25           | ≤25           | ≤25           | ≤25           | ≤25           |
|   | Smoke Developed Index (SDI) |   | ≤450          | ≤450          | ≤450          | ≤450          | ≤450          |
|   | CAN/ULC-S102 <sup>3</sup>   |   |               |               |               |               |               |
|   | Flame Spread Index (FSI)    |   | ≤210          | ≤210          | ≤210          | ≤210          | ≤210          |
|   | Smoke Developed Index (SDI) |   | ≥500          | ≥500          | ≥500          | ≥500          | ≥500          |
| <sup>1</sup> Measurement per 1" (25mm) of thickness |                             |   |               |               |               |               |               |
| <sup>2</sup> For thicknesses up to 4"               |                             |   |               |               |               |               |               |
| <sup>3</sup> For thicknesses up to 100mm            |                             |   |               |               |               |               |               |