



DuraBoard® Roof Insulation

Description

DuraBoard Roof Insulation is a high-density, low-thermal rigid insulation board, composed primarily of expanded perlite with reinforcing cellulosic fibers and selected binders. The top surface is sealed with a special polymerized asphalt emulsion coating which allows for direct application of SBS or APP membranes using torch application techniques.

Use

DuraBoard Roof Insulation is a general purpose board for use in new and re-cover applications or over closed cell foam insulations utilizing SBS or APP membrane roofing systems with torch application. Since an APP or SBS membrane can be directly applied to DuraBoard, the base sheet requirement can be eliminated and fastener quantity and labor time reduced.

There are numerous FM Global® fire and wind-resistant systems (90 psf to 135 psf [439 to 659 kg/m²] ratings) and specific Underwriters Laboratories Inc. Class A constructions approved with DuraBoard. If UL or FM approval is required, ½" (1.27 cm) DuraBoard should not be used directly over steel or wood decks without a base sheet underlayment. DuraBoard also meets the strength requirements of ASTM C 728.

DuraBoard's unique coating does not require pre-heating like heavily coated boards, concrete surfaces or base sheets; therefore the flame of the application torch should be focused on the membrane roll, and not applied directly to the surface of DuraBoard. This results in fuel savings and labor efficiencies.

DuraBoard is a universal substrate that can be used in hot mopped or cold application systems as well.

Energy and the Environment

LEED®	Recycled Content
	See chart below
	Producing Locations
	Rockdale, IL

Advantages

- Direct application of SBS or APP membranes without base sheet requirement
- Superior fire resistance and durability
- Excellent strength and handleability
- Good dimensional stability
- Labor, fuel and material savings
- Potential LEED points

Sizes

DuraBoard is available in 4' x 4' (1.22 m x 1.22 m) board size and ½", ¾" and 1" (1.27 cm, 1.91 cm and 2.54 cm) thickness.

For Use over Metal Decks

The minimum thicknesses of DuraBoard Roof Insulation over metal decks are as follows:

Width of Rib Opening	Up to 1½" (3.81 cm)	Up to 3½" (8.89 cm)
Thickness of Insulation (Minimum)	½" (1.27 cm)*	¾" (1.91 cm)

* For UL® and FM Global approved constructions, ½" (1.27 cm) DuraBoard must be used over other approved foam plastic insulation boards in metal deck applications or can be used directly over concrete decks.

Typical Physical Properties

	½" Thick (1.27 cm)	¾" & 1" Thick (1.91 & 2.54 cm)
Water Absorption (ASTM C 209)		
% by Volume – 2 hours	5.5%	3.5%
Compression Resistance (ASTM C 165)		
5% Consolidation	psi.....35 (kPa).....24150345
10% Consolidation	psi.....75 (kPa).....51785586
Laminar Tensile Strength (ASTM C 209)		
psi.....10 (min.)7 (min.)	
(kPa).....6948	
Flexural Strength, psi (ASTM C 203)		
psi.....12590	
(kPa).....862620	
Product Density (ASTM C 209)		
pcf.....12.0 (nom.)12.0 (nom.)	
(kg/m ³).....192192	
Linear Expansion (ASTM C 209)		
% max.....0.50.5	

Product Data

Thickness in. cm	Nominal C-Value (Conductance) BTU/(hr·ft ² ·°F) W/m ² ·°C	Nominal R-Value (Resistance) (hr·ft ² ·°F)/BTU m ² ·°C/W	Total Recycled %
½ 1.27	0.83 4.7	1.2 0.21	28
¾ 1.91	0.56 3.2	1.8 0.32	25
1 2.54	0.44 2.5	2.3 0.41	25