

# Durex® Quantum Select EPS Insulation Board

## Drained Expanded Polystyrene Insulation Board

**Description** Durex® Quantum Select EPS Insulation Board is a Type I Expanded Polystyrene Insulation Board (as per ULC-S701 and ASTM-C-578) featuring geometrically defined drainage cavities on the back side of the insulation board, intended for use in Durex® Quantum Select family of EIFS Systems. Durex® Quantum Select EPS Insulation is supplied in sheets which are 610 mm (2ft) x 1220 mm (4 ft), in thicknesses from 50.8 mm (2") to 152 mm (6") in increments of 12.5 mm (1/2") and available in both Type I EPS and Type II EPS. Durex® Quantum Select EPS Insulation can be applied over any substrate approved for our Quantum Select family of EIFS Systems and attached by chemical adhesive bond or by mechanical fasteners as specified. The sheets are not to be applied directly to framing members when part of any Durex® Quantum Select family of EIFS System. All test results given herein, or any of those in our EIFS Systems are specific to use Durex® Quantum Select EPS Insulation. Substitution voids all tests results and systems warranties offered. Special aesthetic shapes supplied by others are not incorporated in the Durex® EIFS System warranty.

**Uses** For use as the Exterior insulation in all Durex® Quantum Select family of EIFS Systems. The use of the expanded polystyrene is governed by the applicable building codes.

- Advantages**
- Moisture does not weaken EPS
  - 10mm drainage cavity
  - Thermal protection
  - EPS contains no CFC's, HCFC's or HFC's
  - Chemically inert
  - EPS is a recyclable material
  - Waste to Energy safe

- Limitations**
- Durex® Quantum Select EPS Insulation Board is not recommend for use:
- Is not recommended for uses where sustained temperatures will exceed 165°F
  - Avoid contact with chimneys, steam pipes, electrical or sauna heaters or other such surfaces
  - Precautions should be taken when insulation is in contact with the soil to prevent hidden entry through the foam by vermin or insect pests

### TECHNICAL DATA

PHYSICAL PROPERTIES	
<b>Dimensional Tolerances</b>	± 1.6 mm (1/16")
<b>Bowing Tolerances</b>	± 0.8 mm (1/32")
<b>Available Thicknesses</b>	50.8 mm (2") to 152 mm (6") in 12.5 mm (1/2") increments
<b>Material</b>	Type I EPS - 1.0 lb/ft3 (Virgin) Density Expanded Polystyrene Type II EPS - 1.4 lb/ft3 (Virgin) Density Expanded Polystyrene
<b>Coverage</b>	0.74 m2 (8 ft2) per board

	METHOD	RESULT
<b>Density</b>	ASTM D1622	1.0 lb/ft <sup>3</sup> (16.0 Kg/m <sup>3</sup> ) - Type I EPS
		1.4 lb/ft <sup>3</sup> (16.0 Kg/m <sup>3</sup> ) - Type II EPS
<b>Thermal Resistance</b>	ASTM C518	3.9 ft2 · h · °F/BTU – Type I EPS (R-Value / 1" @ 75°F)
		0.65 m2 · °K/W – Type I EPS (RSI / 25mm @ 24°C)
		4.0 ft2 · h · °F/BTU – Type II EPS (R-Value / 1" @ 75°F)
		0.70 m2 · °K/W – Type II EPS (RSI / 25mm @ 24°C)
<b>Thermal Resistance</b>	ASTM STP1320	4.6 ft2 · h · °F/BTU – Type I EPS (R-Value / 1" @ 0°F)
		0.81 m2 · °K/W – Type I EPS (RSI / 25mm @ -18°C)
		4.8 ft2 · h · °F/BTU – Type II EPS (R-Value / 1" @ 0°F)
		0.84 m2 · °K/W – Type II EPS (RSI / 25mm @ -18°C)
<b>Compressive Strength</b>	ASTM D1612	12.5 psi (86.0 kPa) at 10% Strain – Type I EPS 22.4 psi (154.6 kPa) at 10% Strain – Type II EPS
<b>Flexural Strength</b>	ASTM C203	27.8 psi (192.0 kPa) – Type I EPS
		45.0 psi (310.0 kPa) – Type II EPS
<b>Water Absorption</b>	ASTM D2842	3.8 % (% by volume) – Type I EPS
		1.87 % (% by volume) – Type II EPS
<b>Water Vapour Permeance</b>	ASTM E96	282.0 ng/Pa.s.m2 (4.95 perms) – Type I EPS
		187.23 ng/Pa.s.m2 (3.29 perms) – Type II EPS

<b>Dimensional Stability</b>	ASTM D2126	-1.5 % (linear change) – Type I EPS -1.5 % (linear change) – Type II EPS
<b>Limiting Oxygen Index</b>	ASTM D2863	>24 % - Type I EPS >24% - Type II EPS

**Application** Durex® Quantum Select EPS Insulation Board is always installed with the 610 mm (2 ft) side running vertically and the 1220 mm (4 ft) side running horizontally and in a running bond pattern. All corners are to utilize an interlocking pattern. Follow specific procedures as outlined in the system specification. Do not place insulation onto an uncured water resistive barrier (WRB). Any mechanical fasteners shall be of a type and size approved by Durabond Products Limited for use with the specific EIFS System being used.

**Storage** Store Durex® Quantum Select EPS Insulation Board in a dry, vented, waterproof location and stacked off the ground. Keep materials dry, protected from rapid temperature changes, dampness and moisture and away from direct sunlight. KEEP FROM FREEZING.

**Packaging** Durex® Quantum Select EPS Insulation Board is supplied by the sheet. Individual sheets are bundled in polystyrene bags, to a volume of approximately 480 board feet per bundle. (One board foot is the nominal quantity of insulation derived from a piece of EPS 1 inch thick and 1 foot wide by 1 foot long). Dimensionally, each bundle is 1220 mm (4 ft) x 1200 mm (4 ft) x 762 mm (2 ½ ft). All packaging shall be UV resistant, clearly have the name Durex® printed on the bags and be labeled indicating conformance to the governing codes and tolerances required by Durex®. All insulation products for use in a Durex® EIFS System shall be purchased from Durabond Products Limited or one of its authorized distributors. Insulation boards which are purchased from non-approved sources will void any applicable product or system warranties. Consult with Durabond for a list of approved distributors and manufacturers.

**Health and Safety** For information and advice on the safe handling, storage and disposal of chemical products, refer to the most recent MSDS sheet containing physical, environmental, toxic and other safety/materials handling data. For Industrial use only. Keep out of reach of children.

**Warranty** Durabond Products Limited fully warrants their products when used and applied in strict accordance with the printed instructions on product mixing and product application. Mixing and matching products from other vendors will void any applicable product and system warranties. In any case Durabond’s responsibility shall not exceed either the refund of the purchase price or the replacement of the purchased product

**Technical Services** Technical support is available upon request at [info@durabond.com](mailto:info@durabond.com). Data sheets are subject to change without notice. Please visit our website at [www.durabond.com](http://www.durabond.com) for the most current information, or call toll free at 1-877-DURABOND (387-2266).

