

Kingspan GreenGuard® XPS Insulation Board



Overview

Kingspan GreenGuard XPS is made of closed-cell extruded polystyrene (XPS) and is available in compressive strengths of 25 psi (Type IV), 40 psi (Type VI), and 60 psi (Type VII).

Features and Benefits

- » R-value of 5.0 per inch
- » High water resistance
- » Designed for high-load applications (Type VI and VII)
- » Meets ASTM C578 requirements
- » JKCGC free

Available Products

- » GreenGuard Type IV (25 psi)
- » GreenGuard Type VI (40 psi)
- » GreenGuard Type VII (60 psi)
- » GreenGuard Drainage Channel Board (available in 40 and 60 psi)

Roofing Applications

- » Roof Gardens
- » Plaza Decks
- » Concrete Pavers
- » Ballast

Precautions

- » When stored outdoors, product should be protected from exposure to direct sunlight using the original packaging or an opaque, light-colored tarp. Material that has been unwrapped should be covered or rewrapped.
- » **WARNING:** This product is combustible. A thermal barrier is required as specified in the appropriate building code. Protect product from exposure to open flame or other ignition sources during storage and installation.
- » **Potential Hazard:** Some board panels may have a small amount of a formic acid by-product on the surface. Formic acid is a liquid that can cause skin and eye burns, and nose throat irritation. If liquid is visible on board product, formic acid should be suspected. To view the safety data sheet, visit <https://www.kingspan.com/us/en-us/product-groups/insulation/downloads>

Code Approvals

- » UL – See Classification Certificate A183
- » Miami-Dade County, FL
- » Florida Product Approval – No. FL14164-R

Kingspan GreenGuard XPS Insulation Board

Typical Properties and Characteristics

| Property | Test Method | Type IV XPS | Type VI XPS | Type VII XPS |
|-----------------------------------------------------------|----------------------------|--------------------------|---------------------|---------------------|
| Nominal Board Dimensions (ft) ⁴ | | ½, ¾, 1, 1½, 2, 2½, 3, 4 | 2, 3 | 1½, 2, 3 |
| Nominal Board Width (ft) ⁴ | | 2, 4 | 2, 4 | 2 |
| Nominal Board Length (ft) ⁴ | | 8 | 8 | 8 |
| Edge Profile ⁴ | | Square or Shiplap | Square or DC Board | Square or DC Board |
| Property Type | ASTM C 578 | IV | VI | VII |
| Compressive Strength (psi) | ASTM D 1621 | 25 | 40 | 60 |
| Water Absorption Max (% by volume) | ASTM C 272 | 0.1 | 0.1 | 0.1 |
| Water Vapor Permeance ² (Perm) | ASTM E 96 Desiccant Method | 1.5 | <1.0 | <1.0 |
| Density Min. (lb./ft ³) | ASTM C 303 | 1.6 | 1.8 | 2.2 |
| Service Temperature (Max °F) | | 165 | 165 | 165 |
| Thermal Resistance, R-value ¹ | ASTM C 518 | 5 | 5 | 5 |
| Thermal Conductivity, k-value | ASTM C 518 | 0.2 | 0.2 | 0.2 |
| Flame Spread ³ Smoke Developed ³ | ASTM E84 / UL723 | 15 (Class A) 140 | 15 (Class A) 140 | 15 (Class A) 140 |

¹ Specimens were aged and tested in accordance with FTC Rule (16 CFR, Part 460) and ASTM C578.

² Permeance shown is for 1" thick board. Permeance typically decreases as board thickness increases.

³ These numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by this material under actual fire conditions. All applicable building codes must be followed.

⁴ Not all combinations of thickness, length, width and edge profile are available. Please refer to the Kingspan Insulation LLC Purchase Guide.

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.