

# **GreenGuard®** XPS Insulation Board

#### For use as general purpose insulation for roofing, wall and foundation applications.

The Kingspan GreenGuard® XPS Insulation Board offers an R-value of 5.0 per inch of thickness and is ideal for a variety of applications including below slab, below grade along the foundation, inside basement walls, exterior insulation over wood sheathing and residing as well as Continuous Insulation (Ci) for above grade walls and below grade walls and floors. Rigid extruded polystyrene insulation (XPS) can be used as general purpose insulation for roofing, wall and foundation applications requiring a minimum 25, 40 or 60 PSI compressive strength. In addition to creating healthier, more durable and cost-efficient structures, GreenGuard® products can help meet "green" building certification requirements.

## Kingspan GreenGuard® Type IV 25 PSI XPS Insulation Board

- R-value of 5.0 per inch of thickness
- Meets and exceeds all Type IV and Type X specifications
- Continuous Insulation (Ci) for walls
- Insulates foundation exteriors and protects against backfill damage
- Available as pre-cut 16 inch wide board for cavity wall
- Available as score board for cavity wall; 4' x 8' sheet snaps into 16 in., 24 in. or 32 in. widths

## Kingspan GreenGuard® Type VI 40 PSI XPS Insulation Board

- R-value of 5.0 per inch of thickness
- Designed for high-load applications requiring insulation with minimum compressive strength of 40 psi
- Excellent for low-temperature freezer floors, cold storage facility floors, ice rinks and parking decks
- Available in a square edge board or drainage channel board

## Kingspan GreenGuard® Type VII 60 PSI XPS Insulation Board

- R-value of 5.0 per inch of thickness
- Designed for high-load applications requiring insulation with minimum compressive strength of 60 psi
- Meets ASTM C578 Type VII requirements
- Excellent for low-temperature freezer floors, cold storage facility floors, ice rinks and parking decks
- Available in a square edge board or drainage channel board







## **GreenGuard®** XPS Insulation Board

#### Product Data

| Property  | Test Method                          | Kingspan <b>GreenGuard®</b><br>Type IV 25 PSI<br>XPS Insulation Board | Kingspan <b>GreenGuard®</b><br>Type VI 40 PSI<br>XPS Insulation Board | Kingspan <b>GreenGuard®</b> Type VII 60 PSI XPS Insulation Board |
|---|--------------------------------------|---|---|--|
| Nominal Board Dimensions (in) <sup>4</sup>                |                                      | 1/2, 3/4, 1, 11/2, 2, 21/2, 3, 4                                      | 2, 3, 4   | 1½, 2, 3   |
| Nominal Board Width <sup>4</sup>                          |                                      | 16 in / 2 ft / 4 ft   | 2 ft / 4 ft   | 2 ft   |
| Nominal Board Length (ft) <sup>4</sup>                    |                                      | 8   | 8   | 8  |
| Edge Profile <sup>4</sup>                                 |                                      | Square or Shiplap   | Square or DC Board  | Square or DC Board   |
| Property Type   | ASTM C578                            | IV  | VI  | VII  |
| Compressive Strength<br>Min. (psi @10% deflection)        | ASTM D1621                           | 25  | 40  | 60   |
| Water Absorption<br>Max (% by volume)                     | ASTM C272                            | 0.1   | 0.1   | 0.1  |
| Water Vapor Permeance <sup>2</sup> (Perm)                 | ASTM E96<br>Desiccant Method         | 1.5   | <1.0  | <1.0   |
| Density Min. (lb./ft³)                                    | ASTM C303                            | 1.6   | 1.8   | 2.2  |
| Service Temperature (Max °F)                              |                                      | 165   | 165   | 165  |
| Thermal Resistance, R-value <sup>1</sup> (°F-ft²-hr/Btu)  | ASTM C518<br>(@75° Mean Temperature) | 5.0   | 5.0   | 5.0  |
| Thermal Conductivity, k-value (Btu-in/hr-ft²- °F)         | ASTM C518<br>(@75° Mean Temperature) | 0.2   | 0.2   | 0.2  |
| Flame Spread <sup>3</sup><br>Smoke Developed <sup>3</sup> | ASTM E84 / UL723                     | 15 (Class A)<br>140   | 15 (Class A)<br>140   | 15 (Class A)<br>140  |

<sup>&</sup>lt;sup>1</sup>Specimens were aged and tested in accordance with FTC Rule (16 CFR, Part 460) and ASTM C578.

## Compliance

Intertek CCRR 1021;

Intertek CCRR 1022;

CA BEARHFTI Lic. No. T 1506;

Florida Product Approval – No. FL14164-R5;

CCMC 12722-L;

MN Dept. of Energy - Chapter 7640;

FM Approvals – see RoofNav Roof System Listings (25 & 40psi);

Miami-Dade County, FL;

UL - See Classification Certificate A183;

UL - Canada, File R11183.

## Handling & Storage

When stored outdoors, all 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: Kingspan GreenGuard® XPS Insulation Board is combustible. A protective barrier or thermal barrier is required as specified in the appropriate building code. Protect it from exposure to open flame or other ignition sources during shipping, storage and installation.

### Health & Safety

WARNING: Do not stand on or otherwise support your weight on this product unless it is fully supported by a load bearing surface. For more information on specific building product recommendations and installation guidelines, contact your Kingspan Insulation LLC representative.

For the most current product and compliance information go to www.kingspaninsulation.us.

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<sup>&</sup>lt;sup>2</sup> Permeance shown is for 1" thick board. Permeance typically decreases as board thickness increases.

<sup>&</sup>lt;sup>3</sup> 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.

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

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