**Designwall™ 500**
- Most affordable laminated foam panel
- Ideal for low-rise facades and renovation projects
- Same basic specifications as Designwall 1000 but with flexible plastic backer in place of interior metal skin
- Maximum length 18'-0" and 24" maximum width

**Product Specifications**:
- Core Material: Expanded polystyrene
- Thickness: 1-1/8" (29 mm)
- Widths: 24" standard (special widths 8" min. to 24" max.)
- Lengths: 1'-0 to 18'-0" maximum
- Exterior Surfaces: Steel: Non-directional embossed, Aluminum: Smooth or non-directional embossed
- Standard Metal Gauge: 22 steel, 0.040" aluminum
- R-Value: 4

**Designwall™ 1000**
- Popular choice for low-rise building and eye-appealing renovation projects
- 1-1/8" thick panel is identical in external appearance to Designwall 2000 and 4000, but is more economical, with thermal and structural properties sufficient for many applications
- Value engineered laminated panel for cost effectiveness and aesthetics in both new construction and renovation

**Product Specifications**:
- Core Material: Expanded polystyrene (polyisocyanurate optional)
- Thickness: 1-1/8" (29 mm)
- Widths: 24" and 30" standard (special widths 8" min. to 36" max.)
- Lengths: 1'-0 to 24'-0" standard
- Exterior Surfaces: Steel: Smooth or non-directional embossed, Aluminum: Smooth or non-directional embossed
- Standard Metal Gauge: 22/24 steel, 0.040”/0.040” aluminum
- R-Value: 4-5

**Designwall™ 2000**
- Features a double-gasket shiplap joint in both vertical and horizontal applications to maximize thermal efficiency and create a double barrier against air and water penetration
- Laminated construction allows for maximum design flexibility for custom fabricated applications
- Allows for use of economical expanded polystyrene or high-strength extruded polystyrene as optional core materials

**Product Specifications**:
- Core Material: Laminated polyisocyanurate (polystyrene optional)
- Thickness: 2" or 3" (51 or 76 mm)
- Widths: 24", 30" and 36" standard (special widths 8" min. to 46" max.)
- Lengths: 1'-0 to 24'-0 standard (30'-0 maximum)
- Exterior Surfaces: Steel: Smooth or non-directional embossed, Aluminum: Smooth or non-directional embossed
- Standard Metal Gauge: 22/24 steel, 0.040”/0.040” aluminum
- R-Value: 9-22

**Designwall™ 2000R “Ribbed”**
- Ribbed version of Designwall 2000 used primarily for horizontal applications
- Ribs 13/16” deep x 4” a.c. add a bold profiled look to commercial construction
- Identical joint configuration readily integrates with Designwall 2000H, 2000S, and 4000H flat panels as well as Flushglaze 4500 windows and Design Louvers
- Optional module combinations (in 4” increments to 24” max.) allow for target wall dimensions or accent bands to be easily achieved

**Product Specifications**:
- Core Material: Laminated polyisocyanurate (polystyrene optional)
- Thickness: 2" or 3" (51 or 76 mm)
- Widths: 12” and 24” standard (special widths 16” or 20”)
- Lengths: 1'-0 to 24'-0 standard (30’-0 maximum)
- Exterior Surfaces: Steel: Smooth or non-directional embossed, Aluminum: Smooth or non-directional embossed
- Standard Metal Gauge: 22/24 steel, 0.040”/0.040” aluminum
- R-Value: 7-20

**Designwall™ 2000S “Shadow Line”**
- Striated version of Designwall 2000 used for horizontal or vertical applications
- Striations .035” deep nominal x 5/8” wide provide distinct and attractive linear shadowing effect to a wall
- Identical joint configuration readily integrates with Designwall 2000H, 2000R and 4000H flat panels as well as Flushglaze 4500 windows and Design Louvers
- Available in any module (standard or custom) that is noted for Designwall 2000 V & H

**Product Specifications**:
- Core Material: Laminated polyisocyanurate (polystyrene optional)
- Thickness: 2" or 3" (51 or 76 mm)
- Widths: 24", 30" and 36" standard (special widths 8” min. to 42” max.)
- Lengths: 1'-0 to 24'-0 standard (30’-0 maximum)
- Exterior Surfaces: Steel: Smooth, Aluminum: N/A
- Standard Metal Gauge: 22/24 steel
- R-Value: 9-22

Designwall™ and Flushglaze products are only available through Kingspan Benchmark.
**DESIGNWALL™ 3000**
- Lightweight 1-1/4” thick panel features a honeycomb core between smooth or embossed skins of steel or aluminum
- Uninsulated core allows uniform thermal expansion of face and liner sheet, resulting in exceptional panel flatness under extreme temperature differentials
- Offered with Kraft paper honeycomb core or an optional aluminum core for use where non-combustible wall construction is required

**PRODUCT SPECIFICATIONS:**
- **Core Material**: Phenolic impregnated kraft paper honeycomb (aluminum honeycomb also available)
- **Thickness**: 1-1/4” (32 mm)
- **Widths**: 24”, 30” and 36” standard (special widths 8” min. to 46” max.)
- **Lengths**: 1’-0 to 24’-0 maximum
- **Exterior Surfaces**: Steel: Smooth or non-directional embossed, Aluminum: Smooth or non-directional embossed
- **Standard Metal Gauge**: 22/24 steel, 0.040”/0.040” aluminum
- **R-Value**: N/A

**DESIGNWALL™ 4000**
- Combines performance with economy by featuring a high-density foamed-in-place polyisocyanurate core with embossed steel skins
- Integrates with Designwall 2000 and is identical in profile and appearance
- Suitable and economical for high volume projects

**PRODUCT SPECIFICATIONS:**
- **Core Material**: Foamed-in-place polyisocyanurate
- **Thickness**: 2” or 3” (51 or 76 mm)
- **Widths**: 24”, 30” and 36” standard (special widths 20” min. to 44” max.)
- **Lengths**: 1’-0 to 24’-0 standard (30’-0 maximum)
- **Exterior Surfaces**: Steel: Non-directional embossed
- **Standard Metal Gauge**: 22/24 steel
- **R-Value**: 14-20

**FLUSHGLAZE 4500**
- Satisfies an ever-increasing need to integrate architectural window systems with Designwall 2000H, 2000S, 2000R and 4000H panel joinery
- 4 ½” deep system is ideal for continuous run fixed “strip” windows that are flush with plane of panels with front glass pocket
- All components are thermally broken
- Well suited for low to mid-rise construction
- Individual frames can be either shop or field assembled and connect together using a unique “snap-lock” feature

**FLUSHGLAZE 7500**
- Provides for the integration of Designwall 2000H, 2000R and 4000H with curtainwall type window construction for “thru-tube” applications
- Very versatile system that readily adapts itself to different construction needs
- Includes a wide array of panel adapter extrusions, curtainwall components and modified panel edge options to suit specific window/panel applications

**COLUMN COVERS, BEAM COVERS AND SUNSHADES BY QUALITY METALCRAFTS FOR KINGSPAN BENCHMARK**
- Enhance overall aesthetics of a building by converting unfinished I-beams or concrete conditions into attractive metal features
- Column covers and aluminum plate beams available in round, square, rectangular or oblong sections
- Design options include tight joint, reveals, cap channels or rod and sealant joints, and are available in aluminum plate, stainless steel or copper plate material
- 5” minimum radius and 14” maximum section length
- 70% Kynar 500® PVF Finish System
- Sunshade design is highly customized to suit specific functional and aesthetic applications

Designwall™ and Flushglaze products are only available through Kingspan Benchmark.
ARCHITECTURAL METAL WALL PANEL SYSTEMS \- CENTURYWALL™ SERIES

CWP-H:
- Creates modern, high-tech appearance where flat, horizontal architectural metal wall system is desired
- Hidden fastener offset joinery is provided for easy attachment to structural components from building exterior
- Typically installed over steel studs or tube steel
- May be attached to hat channels, which have been vertically applied over horizontal light gauge girts
- Easily integrated with sheetrock wall construction for multi-story applications

CWP-V:
- Creates a flat vertical architectural wall system with a modern, high-tech appearance
- Easily attached to structural components from building exterior through the provided hidden fastener offset joinery
- Typically installed over steel studs with horizontal strapping, or directly to girts (wide flange, tube steel or light gauge)
- Easily integrated with sheetrock wall construction for added fire safety

CWP-H WAVE:
- North America’s only sinewave profile foam core insulated panel
- Continuous sweeping profile creates beautiful shadowing effects, especially when used with metallic or mica based paint systems
- Unique sidelap joint creates seamless appearance with fully concealed fastener attachments
- Panel can be integrated with CWP-H and CWP-V panels to create architectural highlights, or can be used by itself to create a dynamic wave appearance

OPTIONAL STRIATED PROFILE
*CWP-H and CWP-V Striated: available with optional striated profile to create a highly attractive linear appearance with subtle shadows

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>R-Value by ASTM C 236</th>
<th>Standard Panel Widths (modules)</th>
<th>Panel Length</th>
<th>Joint Configuration</th>
<th>Insulation Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>2”</td>
<td>15</td>
<td>24”</td>
<td>Maximum 30” – 0”</td>
<td>Interlocking tongue and groove</td>
<td>Laminated urethane modified isocyanurate with nominal density of 2.0 – 2.6 lbs./cu.ft.</td>
</tr>
<tr>
<td>2.5”</td>
<td>19</td>
<td>30”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3”</td>
<td>23</td>
<td>36”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Centurywall™ products are only available through Kingspan API.
AR2-12 & AR3-12 ACCENT PANELS:
- Create architectural highlights within a horizontal flat panel wall system
- Two or three bold asymmetric ribs per 12” module create extremely unique linear accents
- Fully integrates with all other CWP panel profiles
- Consistent joint profile and depth provide continuity in vertical and horizontal joint reveals as well as wall system R-value
- Available with factory-folded corner panels (choice of notched and bent or welded and painted to match your project’s budget and design needs)
- Trimless ends and aluminum extrusions are readily available for those finishing touches

PRODUCT SPECIFICATIONS: AR2-12 & AR3-12

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2”</th>
<th>2.5”</th>
<th>3”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>15</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>Standard Panel Widths (modules)</td>
<td>12”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Maximum 30’ – 0”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Laminated urethane modified isocyanurate with nominal density of 2.0 – 2.6 lbs./cu.ft.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Centurywall™ products are only available through Kingspan API.
Commercial & Industrial Thermalspan® products are only available through Kingspan API and ASI.
**300 GS GRANITSTONE®**

- Provides look and feel of E.I.F.S. or textured concrete without inconvenience of field-applied textures
- Choose from 8 in-stock Granitstone colors or custom colors and 5 in-stock Granitstone Quartz colors
- Optional striated profile provides unique alternative to standard flat surface

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2”</th>
<th>2.5”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
<th>6”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>41</td>
<td>49</td>
</tr>
<tr>
<td>Panel Width</td>
<td>42” (1,067 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’ – 0”; Maximum 42’ – 0”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3-2.6 lbs. / cu. ft.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**400 V-WAVE®**

- North America’s only sinewave profile foam core insulated panel
- Continuous sweeping profile creates beautiful shadowing effects
- Unique joint geometry creates complete continuity of wave profile
- Concealed fastener attachment
- Available in stucco embossed or smooth (minimum 24 gauge required for smooth)

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2” (50 mm)</th>
<th>3” nominal (80 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 1363</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>Panel Width</td>
<td>39-3/8” (1,000 mm)</td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’ – 0”; Maximum 48’ – 0”</td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3-2.6 lbs. / cu. ft.</td>
<td></td>
</tr>
</tbody>
</table>

**600 FIRE RATED* (DSL-FR)**

- Produced on Kingspan’s one-of-a-kind high volume continuous mineral wool production line
- Core material is non-toxic, does not release gases in fire and has smoke developed rating of zero
- Water repellent, free of (H) CFCs and recyclable
- Provides superior strength and spanning capability

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>4”</th>
<th>6”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Panel Width</td>
<td>600 = 42” (1,067 mm), DSL-FR = 44 5/8” (1,133 mm)</td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 8’ – 0”; Maximum 600 (40’), 26’ – 0” (DSL-FR)</td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Laminated lamella style rockwool core with an 8# nominal density</td>
<td></td>
</tr>
</tbody>
</table>

**600 QT ACOUSTICAL PANEL**

- One step installation provides excellent sound attention, insulating value and labor savings compared to multiple layer systems
- Combines thermal performance of insulated sandwich panels with proven European soundwall technology
- Tested for South Transmission Loss per ASTM E90 and Sound Absorption per ASTM C423. Sound Transmission Class determined in accordance with ASTM E413
- Core material is non-toxic, does not release gases in fire and has smoke developed rating of zero
- Water repellent, free of (H) CFCs and recyclable
- Lamella style orientation of core provides superior strength and spanning capability

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>4”</th>
<th>6”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Panel Width</td>
<td>42” (1,067 mm)</td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 8’ – 0”; Maximum 42’</td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Laminated lamella style rockwool core with an 8# nominal density</td>
<td></td>
</tr>
</tbody>
</table>

*Fabricated in Modesto, CA  **Fabricated in Bristol, CT
Commercial & Industrial Thermalspan® products are only available through Kingspan API and ASI.
100 SERIES MEMBRANE ROOF SYSTEM

- Laminated membrane provides excellent heat reflectivity and emissivity often required by current energy code regulations
- Unique exterior membrane allows use of panel on very low slope roofs, and is ideal for pre-engineered structures as well as cold storage applications
- All panel-to-panel seams and roof openings sealed with a 48 mil batten strip to provide weather-tightness
- 20-year weather-tight warranty available
- Factory Mutual System Approval

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>5&quot;</th>
<th>6&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>41</td>
<td>49</td>
</tr>
<tr>
<td>Panel Width</td>
<td>42&quot; (1,067 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’ – 0”; Maximum 40’ – 0” (20’0” for cold storage applications)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3-2.6 lbs. / cu. ft.</td>
<td></td>
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</tbody>
</table>

900 HIGH RIB ROOF SYSTEM

- World’s most widely used foam core roof panel
- Ideally suited to meet Title 24 Energy Code requirements
- High-rib design provides maximum strength characteristics
- Joint design is simple and effective, easy to install and provides weather-tight assembly
- Versatile profile can be used as wall panel

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>1.5”</th>
<th>2&quot;</th>
<th>2.5”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
<th>6”**</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>41</td>
<td>49*</td>
</tr>
<tr>
<td>Panel Width</td>
<td>39 3/8&quot; (1,000 mm), 40” (1,016 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’ – 0”; Maximum 48’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Overlapping rib</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3-2.6 lbs. / cu. ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Available only through Kingspan API

Commercial & Industrial Thermospan® Roof Panels are only available through Kingspan API and ASI.
**Panel Exterior:** Standard is 26 gauge, stucco embossed (except 300 A and 300 GS which are Azteco embossed and 400 which is 24 gauge only) with G-90 galvanized steel or aluminum-zinc coated steel. Also available in 24 and 22 gauge.

**Exterior Finish:** Standard is 1.0 mil Valspar® Fluropan® (PVDF) or Dynapon® (MP).

**Panel Interior:** Standard is 26 gauge, stucco embossed G-90 galvanized steel or aluminum-zinc coated steel. Also available in 24 and 22 gauge.

**Interior Finish:** Standard is 1.0 mil Valspar® Dynapon® (MP), USDA accepted and suited for most wash down environments. For heavy wash down areas, plastisol (PVC) or stainless steel is available.

**Color and Finish Options:** Choose from in-stock standard colors or select a custom color to match your needs.

In partnership with Valspar, all of Kingspan’s Standard SOLID and Premium MICA & METALLIC Fluropon® PVDF COOL colors meet requirements for Energy Star® steep-slope roof products.

**External paint system warranties** are available for up to 20 years, depending on specific system and application. Contact Kingspan for details.

**Standard product is non-directionally stucco embossed,** but smooth finishes are available with certain restrictions.

---

**1000 STANDING SEAM ROOF SYSTEM**

- Mechanically seamed sidelap provides unsurpassed weather-tightness at slopes as low as .25/.12
- Hidden clip fastening eliminates need for through fasteners (except at eaves, endlaps and rakes)
- 42” width allows fast installation
- Interior liner provides bright, reflective, washable surface to help reduce lighting requirements

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>16</td>
<td>25</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>Panel Width</td>
<td>42” (1,067 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’ – 0”; Maximum 48’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Mechanically seamed 2” nominal vertical sidelap</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3-2.6 lbs. / cu. ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**MATERIAL SPECIFICATIONS**

(100/200/300/300A/300GS/300R/400/600/DSL-FR/900/1000)

- Panel Exterior: Standard is 26 gauge, stucco embossed (except 300 A and 300 GS which are Azteco embossed and 400 which is 24 gauge only) with G-90 galvanized steel or aluminum-zinc coated steel. Also available in 24 and 22 gauge.
- Exterior Finish: Standard is 1.0 mil Valspar® Fluropan® (PVDF) or Dynapon® (MP).
- Panel Interior: Standard is 26 gauge, stucco embossed G-90 galvanized steel or aluminum-zinc coated steel. Also available in 24 and 22 gauge.
- Interior Finish: Standard is 1.0 mil Valspar® Dynapon® (MP), USDA accepted and suited for most wash down environments. For heavy wash down areas, plastisol (PVC) or stainless steel is available.
- Color and Finish Options: Choose from in-stock standard colors or select a custom color to match your needs.
- In partnership with Valspar, all of Kingspan’s Standard SOLID and Premium MICA & METALLIC Fluropon® PVDF COOL colors meet requirements for Energy Star® steep-slope roof products.

---

Valspar’s Energy Star® compliant Fluropon® SR Coatings have an added infrared reflective pigment and are available in a variety of COOL colors. Thick film coatings to meet environment concerns are available, along with custom color matching.

---

*Fabricated in Deland, FL

Commercial & Industrial Thermalspan® Roof Panels are only available through Kingspan API and ASI.
Cold Storage Thermalspan® Metal Panels

**200 SERIES**

- Most popular profile for cold storage applications
- Very economical insulated wall panel
- Thickness range from 2” to 6” makes panel especially suited for exterior wall panels on Cold Storage Buildings
- Pleasing architectural design is also recommended for Industrial/Commercial projects

<table>
<thead>
<tr>
<th>PRODUCT SPECIFICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Thickness</td>
</tr>
<tr>
<td>R-Value by ASTM C 236</td>
</tr>
<tr>
<td>Panel Width</td>
</tr>
<tr>
<td>Panel Length</td>
</tr>
<tr>
<td>Joint Configuration</td>
</tr>
<tr>
<td>Insulation Material</td>
</tr>
</tbody>
</table>

**300 SERIES**

- Ideal for interior partition walls and suspended ceilings, coolers, freezers and processing areas
- Foam core is chemically bonded to non-permeable steel facings, resulting in retention of insulating value over time
- Superior strength of urethane foam core resists thermal clipping during temperature pull-down
- Relatively flat surfaces ideal for easy wash down in food facilities
- Shallow profile allows excellent sealing of vapor barriers
- Improved side joinery offers excellent foam-to-foam contact for full thermal seals

<table>
<thead>
<tr>
<th>PRODUCT SPECIFICATIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Thickness</td>
</tr>
<tr>
<td>R-Value by ASTM C 236</td>
</tr>
<tr>
<td>Panel Width</td>
</tr>
<tr>
<td>Panel Length</td>
</tr>
<tr>
<td>Joint Configuration</td>
</tr>
<tr>
<td>Insulation Material</td>
</tr>
</tbody>
</table>

**300 A SERIES**

- Ideal for architectural applications where a flat profile is desired
- Available in widths of 42” and 36” standard maximum length at 48”
- Tongue-and-groove joint configuration (same as 200 and 300 series panels)
- Provides the look of masonry stucco at a fraction of the cost, without the need for additional sub-trades

<table>
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<tr>
<td>Joint Configuration</td>
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<tr>
<td>Insulation Material</td>
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</tbody>
</table>

Cold Storage Thermalspan® Metal Panels are only available through Kingspan API and ASI.
100 SERIES MEMBRANE ROOF SYSTEM

- Provides a complete, one-piece weather tight exterior roofing system
- Foamed-in-place (urethane foam) insulated metal panel utilizes a fully adhered “Class A” membrane composed of 34 mil white PVC
- Membrane is factory adhered to a 26 gauge G-90 galvanized steel substrate
- Applications for both conventional and pre-engineered structures
- Most suitable for cold storage applications requiring maximum energy efficiency
- Factory Mutual System Approval

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2”</th>
<th>2.5”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
<th>6”*</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>Panel Width</td>
<td>42” (1,067 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’– 0’; Maximum 40’ – 0” (20’–0” for cold storage applications)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Interlocking tongue and groove</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.4 lbs. / cu. ft.</td>
<td></td>
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</tbody>
</table>

* 6” only available through Kingspan API

900 HIGH RIB ROOF SYSTEM

- World’s most widely used foam core roof panel
- Ideally suited to meet Title 24 Energy Code requirements
- High-rib design provides maximum strength characteristics
- Joint design is simple and effective, easy to install and provides weather-tight assembly
- Interior liner provides bright, reflective, washable surface reducing lighting requirements
- Versatile profile can also be used as a wall panel

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>1.5”</th>
<th>2”</th>
<th>2.5”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>33</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Panel Width</td>
<td>42” (1,067 mm); 40” (1,016 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’– 0’; Maximum 48’ – 0”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Overlapping rib</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3–2.6 lbs. / cu. ft.</td>
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</tbody>
</table>

1000 STANDING SEAM ROOF SYSTEM*

- Mechanically seamed sidelap provides unsurpassed weather-tightness at slopes as low as .25/12
- Hidden clip fastening eliminates need for through fasteners (except at eaves, endlaps and rakes)
- 42” width allows fast installation
- Interior liner provides bright, reflective, washable surface to help reduce lighting requirements

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Panel Thickness</th>
<th>2”</th>
<th>3”</th>
<th>4”</th>
<th>5”</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Value by ASTM C 236</td>
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</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Length</td>
<td>Minimum 10’– 0’; Maximum 48’ – 0”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Configuration</td>
<td>Mechanically seamed 2-3/4” vertical sidelap</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation Material</td>
<td>Foamed-in-place urethane modified isocyanurate with nominal density of 2.3–2.6 lbs. / cu. ft.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Fabricated in Deland, FL

Cold Storage Thermalspan® Metal Panels are only available through Kingspan API and ASI.
INFITTING HINGED

- Used for hand truck and personnel traffic in buildings where environment control is necessary
- Suitable for interior and exterior uses
- Two panel hinged door is available for larger openings

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Height</th>
<th>2'6&quot;</th>
<th>6'6&quot;</th>
<th>7'</th>
<th>8'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>2'</td>
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<tr>
<td>Thickness</td>
<td>4&quot;</td>
<td>6&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Value</td>
<td>33</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation</td>
<td>Foamed-in-place polyiso CFC-free</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door Panel</td>
<td>Structural frame consists of kiln-dried straight-grained Douglas Fir rails and plywood stiles clad with the specified metal. The core is injected with foamed-in-place polyurethane. All seams are sealed.</td>
<td></td>
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</tbody>
</table>

OVERLAP FREEZER

- Ideal door for blast freezer and extreme low temp applications
- Appropriate in a wide variety of applications
- Most often used as a pedestrian traffic door for extreme low temperature, blast freezers, or any controlled environment

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Height</th>
<th>2'6&quot;</th>
<th>6'6&quot;</th>
<th>7'</th>
<th>8'</th>
</tr>
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<tr>
<td>Width</td>
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<td>2'6&quot;</td>
<td>3'</td>
<td>3'6&quot;</td>
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<tr>
<td>Thickness</td>
<td>4&quot;</td>
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<tr>
<td>R-Value</td>
<td>33</td>
<td>50</td>
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HORIZONTAL SLIDING

- Used for both pedestrian and material handling traffic, especially where space restricts use of swinging doors or when installation space is available on only one side of a door opening as with corridors and loading platforms
- Available with manual operation (MHS), and operators can be added

PRODUCT SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Height</th>
<th>7&quot;</th>
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<th>9'</th>
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<td>6&quot;</td>
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<td></td>
</tr>
<tr>
<td>R-Value</td>
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Kingspan is the worldwide manufacturing leader of specialty doors designed for non-standard applications. When you need an insulated door built for custom applications and to a precise specification, you can be confident that no one has more experience in the design and manufacture of special purpose doors than Kingspan.

Our sales, engineering and R&D teams work with customers from the outset of a project to custom design a new door, or adapt an existing design.

- **Ideal for applications where fast-opening and seal-tight closing is important, especially in areas where material handling traffic such as fork lifts and pallet jacks operate**
- **Suitable for coolers, freezers and industrial buildings for interior and exterior applications**
- **Available with manual operation (MBP)**

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- **Ideal for applications where fast-opening and seal-tight closing is important, especially in areas where material handling traffic such as fork lifts and pallet jacks operate**
- **Suitable for coolers, freezers and industrial buildings for interior and exterior applications**
- **Available with electric (EVL) or manual (MVL) operation. Ideal in applications where there is a minimum side room or when several door openings are close together as with warehouse loading docks**
- **Head room of door height plus 18” to 24” is required above door panel**
- **Load bearing walls or an additional load bearing structure is required to support weight of door and hardware**
- **Double Vertical Lift Door (MDVL) is available if headroom is limited to slightly more than half the door size**

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</tbody>
</table>

- **Ideal for tight spaces where side room and head room are limited**
- **Suitable for interior and exterior applications, it is designed for use in coolers, freezers and industrial buildings**

**PRODUCT SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Height</th>
<th>7'</th>
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<th>9'</th>
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</table>

Hercules® Cold Storage Doors are only available through Kingspan API and ASI. Fabricated in Deland, FL.
**Metal Walls**

**Integrity Series Wall Panels**
- Integrity series panels offer designers creative solutions for today’s challenging architecture
- Panels are furnished by Morin as uninsulated systems that can be applied vertically or horizontally
- Most panels can be used in conjunction with one another for enhanced appearance
- Fabricated from Galvalume®/Zincalume®, aluminum, zinc, copper or stainless steel
- Coatings are available in various colors to enhance appearance and provide extended weatherability
- Profiles can be supplied in 12 and 16 inch widths and lengths up to 25 feet are suggested
- Extended lengths can be accommodated
- Heavy gauges are available

**Concealed Fastener Series Wall Panels**
- Concealed fastened series panels provide a full range of architectural pleasing designs
- Panels are furnished by Morin as uninsulated systems that can be applied vertically or horizontally
- Most panels can be used in conjunction with one another
- Fabricated from Galvalume/Zincalume, aluminum, zinc, copper or stainless steel
- Intermediate stiffening ribs for this series can be added or deleted for clean visual appearance
- Coatings are available in various colors to enhance appearance and provide extended weatherability
- Profiles range in width from 12 to 24 inches and lengths up to 25 feet are suggested
- Extended lengths can be accommodated
- Heavy gauges are available
- Additional profiles available

**Button Punch Series Wall Panels**
- Button punch series panels offer the designer a variety of concealed clip profiles
- Panels can be used in conjunction with one another
- Fabricated from Galvalume/Zincalume, aluminum, zinc, copper or stainless steel
- Coatings are available in various colors to enhance appearance and provide extended weatherability
- Profiles lengths up to 25 feet are suggested
- Extended lengths can be accommodated
- Heavy gauges are available
- Additional profiles available

* Fabricated in Bristol, CT
** Fabricated in Fontana, CA

Single Element panels are only available through Morin.
EXPOSED FASTENER SERIES WALL PANELS

- Exposed fastener series panels provide architect and designer with options of an attractive/bold appearance, and flexibility with economics of the project
- Panels are furnished by Morin as uninsulated systems that can be applied vertically or horizontally
- Fabricated from Galvalume/Zincalume, aluminum, zinc, copper or stainless steel
- Coatings are available in various colors to enhance appearance and provide extended weatherability
- Profiles range in width from 24 to 40 inches and in depth from ½ to 4 inches with lengths up to 40 feet are suggested
- Extended lengths can be accommodated
- Morin can provide crimp curve panels in selected profiles (please contact your local sales representative for availability)
- Aesthetic louver blades can be fabricated to match a variety of profiles
- Heavy gauges are available
- Additional profiles available

LINER SERIES PANELS

- Selection of an interior liner panel added to an exterior metal panel will provide a cavity for insulation
- Fabricated from Galvalume/Zincalume and aluminum
- Profiles range in width from 12 to 24 inches and in depth from 1 ½ to 6 inches with lengths up to 22 feet are suggested
- Extended lengths can be accommodated
- Heavy gauges are available
- Additional profiles available
**Metal Roofs**

**Standing Seam Series Roof Panels**
- Standing seam series panels are tested periodically to supply architects and engineers with technical support for a changing environment.
- Some panels can be supplied for 1/12 minimum roof slopes and still meet weathertightness requirements.
- Fabricated from Galvalume/Zincalume, aluminum, zinc, copper or stainless steel.
- Intermediate stiffening ribs are optional for this series.
- Coatings are available in various colors to enhance appearance and provide extended weatherability.
- Profiles range in width from 12 to 24 inches and in depth from 1 to 3 inches with lengths up to 40 feet are suggested.
- SRR/SSR/SLR/SWL profiles can be portable roll-formed to seamless panel lengths that can exceed 200 feet.
- Most standing seam series panels meet UL and/or FM approvals.
- Retro-fit is an ideal application for a standing seam series panel.
- Heavy gauges are available.

**Exposed Fastener Series Roof Panels**
- Exposed fastener series panels are an economic roof cover solution.
- Fabricated from Galvalume/Zincalume, aluminum, zinc, copper or stainless steel.
- Coatings are available in various colors to enhance appearance and provide extended weatherability.
- Profiles range in width from 24 to 40 inches and in depth from 1/2 to 4 inches with lengths up to 40 feet are suggested.
- Extended lengths can be accommodated.
- Morin can provide crimp curve roof panels in selected profiles (Please contact your local sales representative for availability).
- Heavy gauges are available.

---

* Fabricated in Bristol, CT
** Fabricated in Fontana, CA

Single Element panels are only available through Morin.
Pressure release Wall systems

• Designed to give clear, unobstructed opening for hazardous portion of any building
• Wall must be installed with restraining cables to prevent damage to other property and allow reuse of panels (unless damaged) after an explosion
• Wall can be engineered to release at a specified design pressure

UL Fire Rated Systems

• Field assembled fire rated wall systems can be designed with a variety of profiles that meet 1 to 4 hour ratings
• Even if entire wall does not require a fire rating, a continuity of exterior appearance can be maintained
• Can be used as interior partition, instead of masonry construction

Mitered Corners

• Corners are installed whenever horizontal continuity must be maintained
• Miterwelded Corners are constructed from .050 aluminum, continuously welded and are post painted in a Kynar® finish after fabrication (recommended for solid colors)
• Miterseam Corners are constructed from the same material as adjacent panel and are structurally bonded (recommended for mica and metallic colors to ensure color matching to adjacent panel)

Pressure Release Wall Systems

• Designed to give clear, unobstructed opening for hazardous portion of any building
• Wall must be installed with restraining cables to prevent damage to other property and allow reuse of panels (unless damaged) after an explosion
• Wall can be engineered to release at a specified design pressure

Extrusions

• Variety of standard and custom extrusions is available for 7/8 and 1 1/2 inch deep wall panels

Single Element panels are only available through Morin.

* Fabricated in Bristol, CT
** Fabricated in Fontana, CA
COLOR COATINGS
• In partnership with Valspar®, all of Kingspan’s Standard SOLID and Premium MICA & METALLIC Fluropon® PVDF COOL colors meet requirements for Energy Star® steep-slope roof products
• Valspar’s Energy Star® compliant Fluropon® SR coatings have an added infrared reflective pigment and are available in a variety of COOL Colors
• Thick film coatings to meet environment concerns are available
• Custom color matching available
• Contact Kingspan at 1-877-638-3266 to request a color card

GRANITSTONE®
• Features advantages of lightweight insulated panels with architectural appearance of natural granite or sprayed stucco
• Combines time-tested beauty of acrylic aggregate coatings with epoxy primed Galvalume/Zincalume facings to create a high-strength, factory-finished panel that is energy efficient and fast to install
• Custom colors are offered to match decorative needs
• Provides a distinctive, modern architectural appearance at surprisingly low cost
• Tested to meet or surpass performance requirements
• 10 year limited warranty

GRANITSTONE QUARTZ
• Complements existing stucco standard Granitstone finishes with natural stone finish for panel systems
• Features deeper, heavier texture composed of natural multi-colored quartz aggregates with clear acrylic binder
• Mimics complex relationship of texture and color that marks appearance of natural stone
• Five colors: cascade sand, teton gray, monterey gold, foxwood beige and dakota bronze
• All panels have standard USDA approved interior paint finishes

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GRANITSTONE PERFORMANCE TESTING:
- Moisture resistance (ASTM D-2247) 14 days exposure, no deleterious effects
- Salt spray (ASTM B-117) 1000 hours, no deleterious effects
- Abrasion resistance (ASTM D-968) 500 liters of sand, no deleterious effects
- Accelerated weathering (ASTM G-23) Passes 2,000 hours
- Freeze/Thaw (60 cycles) No checking, cracking or splitting
- Mildew resistance (MIL STD 801B) No growth of mildew
- Flame spread (ASTM E-84) < 25, Class 1 rating

GRANITSTONE PRODUCT SPECIFICATIONS (CENTURYWALL & DESIGNWALL):
- Panel Thickness 2” 2.5” 3”
- R-Value by ASTM C 236 15 19 23
- Standard Panel Widths (modules) 24” 30” 36”
- Panel Length Maximum 30’ – 0”
- Joint Configuration Interlocking tongue and groove
- Insulation Material Laminated urethane modified isocyanurate with nominal density of 2.0 – 2.6 lbs./cu. ft.

GRANITSTONE PRODUCT SPECIFICATIONS (THERMALSSPAN):
- Panel Thickness 2” 2.5” 3” 4” 5” 6”
- R-Value by ASTM C 236 16 20 25 33 41 49
- Standard Panel Widths 42” (1,067 mm)
- Panel Length Minimum 10’ – 0”; Maximum 48’ – 0”
- Joint Configuration Interlocking tongue and groove
- Insulation Material Foamed-in-place urethane modified isocyanurate with nominal density of 2.3 – 2.6 lbs./cu. ft.
Kingspan is the world’s largest producer of urethane foam core sandwich panels. Our five U.S. plant locations manufacture a complete line of insulated metal composite panels, insulated doors, and single element architectural metal panels to serve the needs of the architectural, commercial/industrial, cold storage and food processing markets. Our multiple coast-to-coast locations and broad product line allow us to provide unsurpassed service to the entire North American market as well as export destinations.

KINGSPAN API: MODESTO, CA
Manufactures commercial/industrial and cold storage panels as well as Centurywall™ architectural panels, and services the Western U.S., Western Canada and the Pacific Rim.

KINGSPAN ASI: DELAND, FL
Manufactures commercial/industrial and cold storage panels as well as the Hercules® brand of insulated doors, and services the Eastern U.S., Eastern Canada and the Caribbean.

KINGSPAN BENCHMARK: COLUMBUS, OH
Manufactures the Designwall™ series of architectural panels and services the Eastern U.S. and Eastern Canada.

MORIN: BRISTOL, CT, FONTANA, CA AND DELAND, FL
Manufactures single element insulated and non-insulated architectural wall and standing seam roof systems, and services the world.
The information contained in this brochure and in the accompanying typical detail sheets is thought to be reliable and correct, but is subject to change without notice. Kingspan assumes no responsibility for engineering or design of any structure or sub-structure, whether such structure contains products manufactured by Kingspan or not. Typical details are meant to show the products of the seller in a manner which is representative of the way in which they are installed. It is the responsibility of the buyer or his or her architect or engineer to verify that any product is suitable for the conditions and use intended and that the products are compatible with any other material.

Environmental Benefits Statement of using post consumer waste fiber vs. virgin fiber

Kingspan Insulated Panels saved the following resources by printing this booklet with paper made from 100% recycled fiber and 50% post-consumer waste, processed chlorine free, and manufactured with electricity that is offset with Green-e® certified energy certificates.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Post Consumer Waste Fiber</th>
<th>Virgin Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Water</td>
<td>4,803 gallons</td>
<td>9,606 gallons</td>
</tr>
<tr>
<td>Energy</td>
<td>10 million BTU</td>
<td>20 million BTU</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>1,051 pounds</td>
<td>2,102 pounds</td>
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<tr>
<td>Greenhouse Gases</td>
<td>1,776 pounds</td>
<td>3,552 pounds</td>
</tr>
</tbody>
</table>

Calculations based on research by Environmental Defense Fund and other members of the Paper Task Force.