Hunter Xci: Exterior Continuous Insulation
Energy Efficiency and NFPA 285 Compliance Made Easy
As the first start-up company to enter the polyiso industry since 1975, Hunter Panels has a singularly dedicated mission: to distinguish ourselves as an aggressive entrepreneurial manufacturer, and also as a proactive leader in the marketing of innovative continuous insulation polyiso products. We are a self-contained manufacturer with a companywide, laser-like focus on our mission. Hunter Panels has assembled an unparalleled team of leading industry professionals who know polyiso inside and out and have a proven passion for being technically proficient and customer driven in everything we do as a company. Quality isn’t just a goal at Hunter Panels — it’s in our corporate DNA.

As the recognized industry leader and pioneer in polyiso roof insulation panels for over 19 years, we take great pride in introducing you to Hunter Xci, our product line for commercial wall applications. Hunter Xci products have been intuitively designed for exclusive use in commercial wall applications to provide continuous insulation (ci) within almost any commercial building envelope.

**What is ci?**
The U.S. Department of Energy’s Building Energy Code program defines continuous insulation (ci) as “insulation that runs continuously over structural members and is free of significant thermal bridging.” Ci can be installed on interior and exterior wall structures or as an integral part of any opaque surface of the overall building envelope. It should be noted that ci options that include foam plastics carry additional code compliance requirements and must comply with Chapter 26 of the IBC and NFPA 285-tested assembly requirements.

ASHRAE 90.1 includes significant and increased requirements for nonresidential wall insulation. These prescriptive minimum values are increasing across all climate zones to include “continuous exterior insulation”. Hunter Xci Polyiso is the proven choice of design professionals for NFPA 285 code compliance and all of your ci needs.

* Other than fasteners and service openings.

**Why is “ci” important?**
BOMA estimates that the commercial real estate industry spends approximately $24 billion annually on energy. Furthermore, they state that energy is the single largest controllable operating expense for office buildings. In total, residential and commercial buildings comprise approximately 40% of overall US energy use by sector. These figures illustrate why continuous insulation is important. Thermal bridging can reduce effective R-values within walls by 30%–60% or more. The ci component of a wall assembly is essential in minimizing the effects of thermal bridging and creating wall systems where the actual thermal performance more closely resembles what has been specified.

ASHRAE Standards & Guidelines are designed to provide minimum requirements for energy efficient buildings (excluding low-rise structures).
Hunter Xci Polyiso—the best choice for “ci”

- Seven distinct NFPA-compliant products with an exponential number of wall assembly combinations
- More NFPA-compliant assemblies than other manufacturers
- Uniquely innovative product development capabilities
- Recognized global leader in polyiso manufacturing
- Seven manufacturing facilities positioned to strategically service North American needs
- Hunter Xci markets our BIM files through BIMsmith and BIMObjects
- Specs available online at MasterSpec, Spec-Link
- AIA CEU courses available
- WUFI modeling offered
- Full-time, unsurpassed technical department staff
- Full-time research and development, testing and quality control departments
- Knowledgeable and friendly account managers
- Legendary “Whatever It Takes” customer service
- We actually answer our telephones!

LEED Potential Credits for Polyiso Use

**Energy and Atmosphere**
- Optimize Energy Performance

**Materials & Resources**
- Building Life-Cycle Impact Reduction  
- Material Reuse  
- Environment Product Declaration  
- Recycled Content  
- Construction and Demolition Waste Management
### Xci Foil (Class A) Thermal Values

<table>
<thead>
<tr>
<th>Thickness (inches)</th>
<th>Thickness (mm)</th>
<th>R Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>25</td>
<td>6.3</td>
</tr>
<tr>
<td>1.5</td>
<td>38</td>
<td>9.5</td>
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<tr>
<td>2.0</td>
<td>51</td>
<td>13.0</td>
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<tr>
<td>2.5</td>
<td>64</td>
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<tr>
<td>3.0</td>
<td>76</td>
<td>19.0</td>
</tr>
<tr>
<td>3.5</td>
<td>89</td>
<td>22.0</td>
</tr>
</tbody>
</table>

*Thermal values as per ASTM C 518 in accordance with ASTM C 1289.

### Xci Foil (Class A) Typical Physical Property Data Chart

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Spread Index (faced)</td>
<td>ASTM E 84</td>
<td>&lt; 25</td>
</tr>
<tr>
<td>Smoke Developed (faced)</td>
<td>ASTM E 84</td>
<td>&lt; 250</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D 1621</td>
<td>20 psi (138 kPa)*</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>ASTM D 2126</td>
<td>2% linear change (7 days)</td>
</tr>
<tr>
<td>Moisture Vapor Permeance</td>
<td>ASTM E 96</td>
<td>&lt; 0.04 perm</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM C 209</td>
<td>&lt; 0.05% volume</td>
</tr>
<tr>
<td>Service Temperature</td>
<td></td>
<td>-100° to 250° F (-73°C to 122°C)</td>
</tr>
</tbody>
</table>

* Also available in 25psi (172 kPa)

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**Polyiso offers comfortable thermal control, energy efficiency, and usage benefits with a superior R-value**

Polyiso offers increased R-value per inch vs mineral fiber, XPS or EPS options. This helps not only in thermal efficiency of the building but requires less material and waste on the jobsite, a smaller overall building footprint for equivalent square footage and supports compliance with strict masonry codes that limit cavity wall insulation thicknesses.

**For the best ci, insulate with Hunter Xci**

Nobody knows polyiso like Hunter. Quality and product consistency is never an afterthought with us; it’s our prime directive. Hunter Xci products’ proven high thermal values and meticulous technical data are only two examples of how we compare to ci products made by other manufacturers.

**Codes and compliances**

- ASTM C1289
- IBC Chapter 26; IRC section R316
- Designed to meet the most current ASHRAE 90.1 and IECC standards
- NFPA 285 compliant assemblies
- UL 263 hourly designs

**Overall metrics of insulation products**

Polyiso is the proven choice when it comes to physical properties in the continuous insulation market place.

- Polyiso offers increased R-value per inch vs mineral fiber, XPS or EPS options
- Comparable moisture resistance to XPS and EPS and greater moisture resistance than rockwool
- Great fire performance and wide selection of NFPA 285 compliant assemblies to choose from
- Superior availability and capacity versus other ci options
- Lightweight yet durable, easy to handle. Cuts with a knife or saw
- Proven compatibility with other building components within the wall cavity, including solvent based adhesives and sealants
The National Fire Protection Association (NFPA) is an international non-profit organization established in 1896. The mission of the NFPA is to reduce the worldwide burden of fire and life-safety hazards on people by improving quality of life and advocating for consensus codes and standards, research, training, and education.

Of the tests and standards that are conducted and managed by the organization, NFPA 285 is one of the most stringent. NFPA 285 is a pass/fail, multi-story wall assembly fire test required by code for commercial buildings in construction Types I, II, III, and IV. An assembly with combustible components that successfully passes the test is allowed to be used in non-combustible construction.

The NFPA 285 test is a complete-assembly test. Unlike independent product approval tests, the assembly includes all significant components of the total wall system (assembly), from interior finish to exterior cladding. Accessory products such as caulks, tapes, flashing, and fasteners are generally not considered as an impact to the test because the overall volume of material is so small.

Effective, efficient compliance choices
Hunter Panels performs extensive tests with our Xci products to provide hundreds of NPFA 285-compliant wall assemblies. The latest compliant assembly options are updated regularly on www.hunterpanels.com. A complete Engineering Extension report is also available, showing all assembly options for Xci products in one convenient document, as well as at-a-glance reference sheets for each individual product and base-wall type. The Hunter Panels NFPA 285 assembly information is listed in TER 1402-01 and 1402-02, with information about other fire-performance characteristics of Xci insulations.

Hunter Panels researches and tests the widest assortment of NFPA 285 compliant assemblies available. With this information in hand, architects have the potential for unsurpassed flexibility in their design selection.

<table>
<thead>
<tr>
<th>BASE WALL SYSTEM</th>
<th>CLADDING FAMILY TYPE</th>
<th>MATERIAL OPTIONS</th>
<th>FLOORLINE FIRESTOPPING</th>
<th>STUD CAVITY</th>
<th>EXTERIOR SHEATHING</th>
<th>WEATHER RESISTIVE MEMBRANE APPLIED TO BASE WALL</th>
<th>WEATHER RESISTIVE MEMBRANE APPLIED TO EXTERIOR INSULATION</th>
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<tbody>
<tr>
<td>Steel Stud</td>
<td>Masonry</td>
<td>Xci Foil</td>
<td></td>
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<tr>
<td>Limestone or Natural Stone</td>
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<tr>
<td>Cultured Stone</td>
<td>Stucco</td>
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<tr>
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<td>TABS Panel II System</td>
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<tr>
<td>Stone Aluminum</td>
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<tr>
<td>Cultured Stone</td>
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<tr>
<td>Terra Cotta Cladding</td>
<td>Autoclaved Aerated Concrete</td>
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<tr>
<td>Autoclaved Aerated Concrete</td>
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<td>Metal Exterior</td>
<td>MCM System</td>
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www.hunterpanels.com
Hunter Xci products for NFPA-compliant wall assemblies

### HUNTER PANELS Xci FOIL (CLASS A)
For wood, steel, CMU or masonry construction
- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Flame Spread <25 per ASTM E 84
- Provides continuous insulation (ci) for FRT wood frame, steel stud, CMU and concrete exterior wall constructions
- Suitable for many commercial wall assemblies
- Available thicknesses 1"–4.0", R-values 6.5–27.0
Note: Suitable for exposed wall or ceiling interior application.

### HUNTER PANELS Xci FOIL
For wood, steel, CMU or masonry construction
- Provides continuous insulation (ci) for FRT wood frame, steel stud, CMU and concrete exterior wall constructions
- Available thicknesses 1.0"–4.0", R-values 6.5–27.0
- Suitable for masonry cavity wall applications
Note: Xci Foil is not suitable for exposed interior applications.

### HUNTER PANELS Xci CG
For wood, steel, CMU or masonry construction
- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Available thicknesses 1.0"–4.0", R-values 6.0–25.0

### HUNTER PANELS Xci CG (CLASS A)
- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Flame Spread <25 per ASTM E 84
- Available thicknesses 1.0"–4.0", R-values 6.0–25.0
Note: Xci CG is not suitable for exposed interior applications.

### HUNTER PANELS Xci PLY
For wood, steel, CMU or masonry construction
- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Optimal substrate for mechanically attaching cladding materials
- Available thicknesses 1.6"–4.7", R-values 6.8–26.0
- Approved for use as structural insulated sheathing up to 2.7" thickness

### HUNTER PANELS Xci PLY (CLASS A)
- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Flame Spread <25 per ASTM E 84
- Available thicknesses 1.6"–4.7", R-values 6.8–26.0
- Approved for use as structural insulated sheathing up to 2.7" thickness
Hunter Xci products for type 5 construction where NFPA 285 is not required

HUNTER PANELS Xci 286
For exposed interior applications
- Provides continuous insulation (ci) for exposed interior walls or ceilings per NFPA 286
- Provides exterior sheathing options in tested NFPA 285 wall assemblies. Contact Hunter Xci for details.
- Both sides reinforced foil, one side white, one side reflective, either may be left exposed
- Available thicknesses 1”–3.5”, R-values 6.3–22.0

HUNTER PANELS Xci NB
For standard wood frame construction only

APPLICATIONS
- For standard wood frame construction only
- Suitable substrate for cladding/finishes such as fiber cement siding, masonry, metal, composite cladding systems, wood clapboards, wood shingles and vinyl siding
- Suitable for new construction and retrofit on commercial and residential exterior walls

Note: Xci NB is not intended for use below grade.

FEATURES AND BENEFITS
- Polyiso offers increased R-value per inch vs mineral fiber, XPS or EPS options
- Designed for use in continuous insulation to assist in meeting the most current ASHRAE 90.1, IECC, IBC and IRC standards
- A superior combination of high insulating properties and nailable surface
- Manufactured with NexGen Chemistry: Contains no CFCs, HCFCs, is Zero ODP, and has virtually no GWP
- Incorporates APA-TECO Rated Exposure OSB or Plywood
- Available thicknesses 1.5”–4.6”, R-values 6.6–25.8
Hunter Panels Xci projects

• Penn State Ice Arena, State College, PA
• 1717 Ridge, Evanston, IL
• Parkland Hospital, Dallas, TX
• Protsman Elementary, Dyer, IN
• Clark Park Boathouse, Chicago, IL
• Gardner Elementary, Gardner, KS
• New West Elementary, Sugar Creek, MO
• Aunt Martha’s Youth Center, Chicago Heights, IL
• Mitchellville Penitentiary, Mitchellville, IA
• Clear Lake Medical Center, Houston, TX
• Wichita West HS, Wichita, KS
• Dartmouth College Science Building, Hanover, NH
• Ft. Drum, Governor, NY
• University of Northwestern Ohio, Lima, OH
• Freeport Community Center, Freeport, ME
• Lake Park Crescent, Chicago, IL
• University of KS, Studio 804, Lawrence, KS
• The Inns at Armory Square, Syracuse, NY
• Urbandale High School, Urbandale, IA
• Clifford Corners Development, Indianapolis, IN
• Aunt Martha’s Youth Center, Joliet, IL
• Spencerport Fire Station, Spencerport, NY
• Fort Dodge Middle School, Ft. Dodge, IA
• North End Phase 2, Milwaukee, WI
• Jean D’Arc Credit Union, Lowell, MA
• Hyatt Hotel, Portland, ME
• FedEx Ground Shipping Center, Billings, MT
• RGRTA Transit Center, Rochester, NY
• Lake Mills Elementary, Lake Mills, WI
• Hilltop Townhouses, Berlin, VT
• ER Martin Elementary School, Lancaster, PA

Contact Hunter Panels for a complete listing of projects.

Find Hunter Xci at:

Hunter Xci memberships and associations:

For more information or to order Xci polyiso products, visit www.hunterpanels.com.