murus®

STRUCTURAL INSULATING PANELS

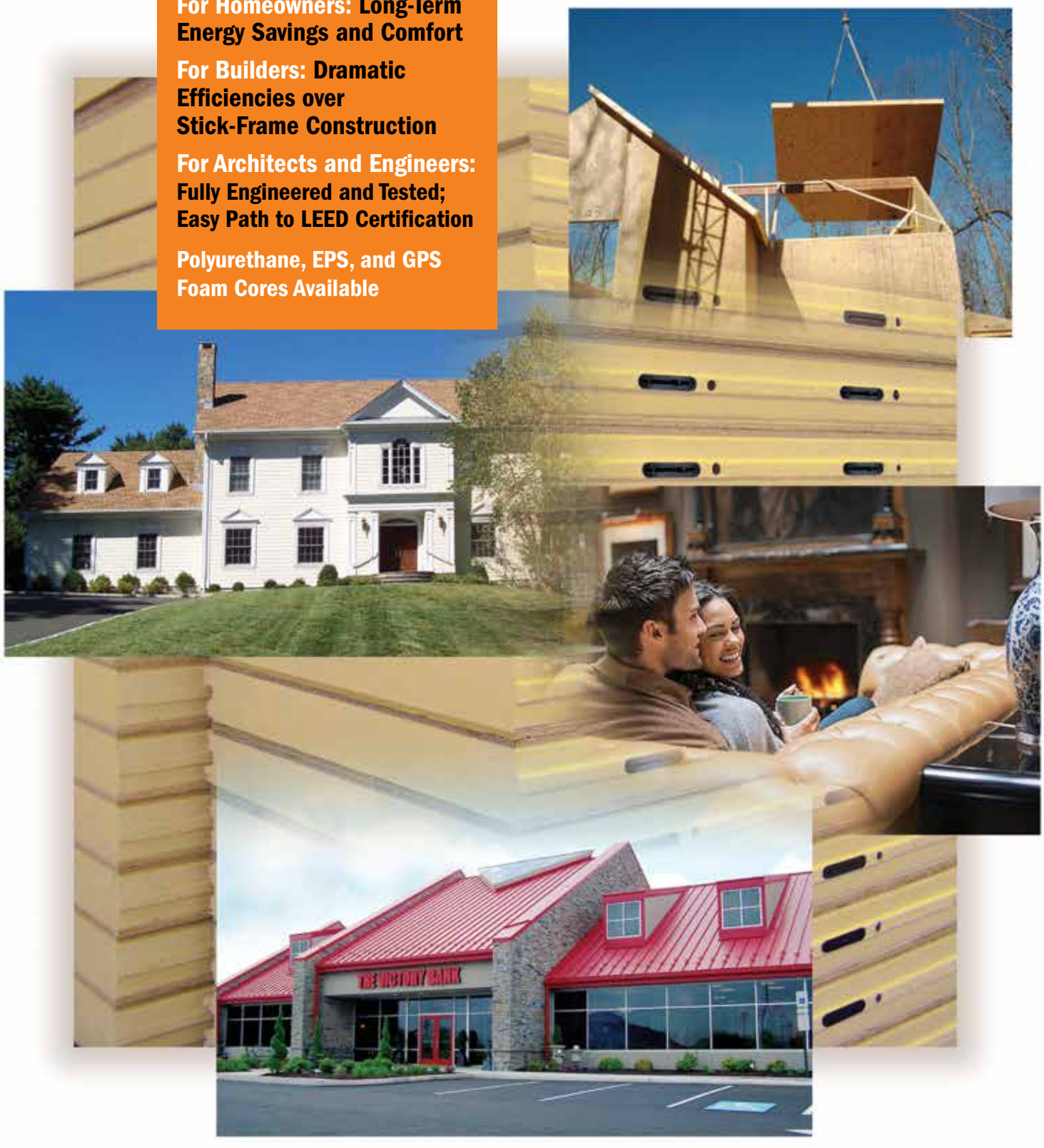
# BUILDING THE FUTURE

**For Homeowners: Long-Term Energy Savings and Comfort**

**For Builders: Dramatic Efficiencies over Stick-Frame Construction**

**For Architects and Engineers: Fully Engineered and Tested; Easy Path to LEED Certification**

**Polyurethane, EPS, and GPS Foam Cores Available**



# Polyurethane Foam Core SIPs

Murus Polyurethane (PUR) SIPs were the first panels we produced, and is our signature product line, offering superior R-values per inch of thickness. With consistent insulation through composite construction, a building envelope constructed of Murus SIPs provides excellent air-tightness, resulting in significant savings on heating and cooling energy consumption. The PUR foam core provides the highest R-value per inch of thickness of any SIP foam core available. Murus PUR foam does not contain formaldehyde, CFC's, HCFC's, or other ozone-depleting compounds.

**Tongue and Groove Profile**
The molded tongue and groove edge profile ensures quick, proper alignment of panel-to-panel joints. Once installed and sealed with spray foam sealant, Murus PUR SIPs are distinguished by the continuous uniformity of insulation that is lacking in spline connection systems.

**Cam-Lock System**
The Murus patented cam-lock system saves considerable installation time over other SIP systems and can offer even greater time savings over conventional stud wall construction. Cam-locks are located every two feet along the panel's tongue and groove profile edge, and aid in providing a positive seal between panels, helping to eliminate moisture and air infiltration.

**Proprietary Process**
The Murus proprietary manufacturing method is a key component in creating our PUR panel's superior characteristics. The Uniform Dispersion Molding (UDM) method enhances the properties of the foam and creates the strongest possible bond between the skins. The liquid foam is uniformly dispersed throughout the mold; the foam expands, bonds, and cures under 12 to 14 psi. UDM produces uniform foam density and spherical cells throughout the foam core ensuring superior, uniform strength as compared to elongated, rice-shaped cells found in polyisocyanurate lamination foams.



**Electrical Chase**
During manufacturing, Murus embeds a standard electrical chase horizontally in the panel's foam core. Three standard chase heights are available. Additional heights can be easily added – for example, a dedicated chase for countertop receptacle switches or communication wiring.

**Fire Resistance**
Murus PUR foam cores have a Class 1 fire resistance rating – the highest rating available for combustible materials.

**Lifetime Warranty**
A lifetime warranty covers our Polyurethane SIPs against delamination. Contact Murus for complete warranty information.

**Product Testing and Certification**
Listed with **ICC-NTA.**

## THE MURUS OSB-2100/PUR STRUCTURAL INSULATED PANEL

| **Series** | **2145** | **2155** | **2165** |
|---|---|---|---|
| OVERALL THICKNESS (inches) | 4-5/8 | 5-5/8 | 6-5/8 |
| WIDTH (inches) | 48 | * | * |
| STANDARD LENGTHS (feet) | 4, 6, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24 | | |
| WEIGHT (lbs/sf) | 3.95 | 4.15 | 4.35 |
| **Insulated Core:** Polyurethane Closed Cell Foam | | | |
| CORE FIRE RATING | Class 1 | **UL723 | |
| SYSTEM R-VALUE @ 75F | 27 | 34 | 41 |
| SYSTEM R-VALUE @ 40F | 29 | 37 | 44 |
| **Skins:** 7/16 inch oriented strand board (OSB), PS2, Exposure-1 | | | |
| **Other Panel Systems Available:** See www.murus.com/products | | | |

*Specification or value is the same as the OSB-2145PUR Panel Panel.
Class 1 is the highest rating available for combustible materials.
**UL723 is not necessarily a representation of performance in an actual fire.



**Murus SIPs are used for exterior wall, roof, and floor applications in residential and light commercial construction.**

- **Precision factory computer-controlled pre-cutting**
- **Faster project shell-in time**
- **Green building qualified– LEED qualified- FSC OSB skins (when available)**



# EPS Foam Core SIPs

Murus Expanded Polystyrene (EPS) SIPs are a high quality, competitively priced alternative to conventional construction, offering energy efficiency and superior R-values. Murus EPS SIPs are available in a variety of thicknesses, in 4-foot and 8-foot widths, in lengths up to 24 feet.

The EPS manufacturing process expands the foam core material into a large block which is then cut to the desired core thickness and length. It is then pressure-laminated to the panel skin surfaces using an extremely durable one-part structural urethane adhesive which is reacted to set under pressure. The resulting bond is stronger than the materials it laminates together.



**Panel installation**
EPS SIPs are installed using a key-spline connection system. Typical panel-to-panel connection is achieved using two plywood splines inserted into pre-routed spline grooves. Panels are manufactured with core dimensions that allow dimensional lumber to be incorporated for additional load-bearing support, if required.

**Electrical Chase**
Electrical wiring is accommodated through horizontal electrical chases cut into the EPS core during panel manufacturing. Optional vertical chases can also be incorporated.

**Fire Resistance**
Murus EPS foam cores have a Class 1 fire resistance rating – the highest rating available for combustible materials.

**EPS Warranty**
A limited 10-year warranty against delamination. Contact Murus for full details.

**Product Testing and Certification**
Listed with **ICC-NTA**.

## THE MURUS OSB-2100/EPS STRUCTURAL INSULATED PANEL

| Series | 2145EPS | 2165EPS | 2185EPS | 21105EPS | 21125EPS | 21150EPS |
|---|---|---|---|---|---|---|
| OVERALL THICKNESS (inches) | 4-5/8 | 6-1/2 | 8-1/4 | 10-1/4 | 12-1/4 | 15 |
| WIDTH (inches) | 48 or 96 | * | * | * | * | 48 |
| STANDARD LENGTHS (feet) | | | | | | |
| (48 inch Widths) | 8, 9, 10, 12, 14, 16, 18, 20, 22, 24 | | | | | |
| (96 inch Widths) | up to 24 | | | | | |
| WEIGHT (lbs/sf) | 3.50 | 3.70 | 3.80 | 4.00 | 4.20 | 4.40 |
| **Insulated Core:** | Expanded Polystyrene Foam | | | | | |
| CORE FIRE RATING | Class 1 | | **ASTM E84 | | | |
| SYSTEM R-VALUE @ 75F | 15 | 23 | 29 | 37 | 45 | 55 |
| SYSTEM R-VALUE @ 40F | 16 | 25 | 32 | 40 | 49 | 60 |
| **Skins:** | 7/16 inches oriented strand board (OSB), PS2, Exposure-1 | | | | | |
| **Other Panel Systems Available:** | See www.murus.com/products | | | | | |

*Specification or value is the same as the OSB-2145EPS Panel.
Class 1 is the highest rating available for combustible materials.
**ASTM E84 is not necessarily a representation of performance in an actual fire.

- **Highly energy efficient with superior insulating values**
- **Excellent air-tightness for reduced energy consumption**
- **Superior living comfort**
- **Environmentally responsible**

**Lower your cost of ownership by building with Murus SIPs.**






# GPS Foam Core SIPs

Murus offers graphite-enhanced NEOPOR® brand EPS from BASF as a value-added SIP foam-core alternative. GPS SIPs are available in a variety of thicknesses in 4-foot and 8-foot widths, and in lengths up to 24 feet.

**GPS** is a proprietary expanded polystyrene formulated by incorporating graphite into the EPS cell structure. The particles reflect and absorb thermal radiation, thus improving the ability of EPS to insulate (a 20% increase in R-value over standard EPS in the same thickness).

No CFC's, HCFC's, HFC's, or halogenated cell gases are used in the manufacture of GPS.

**Electrical Chase**
Electrical wiring is accommodated through horizontal electrical chases cut into the GPS core during panel manufacturing. Optional vertical chases can also be incorporated.

**Fire Resistance**
Murus GPS foam cores have a Class 1 fire resistance rating – the highest rating available for combustible materials.

**Warranty**
A limited 10-year warranty against delamination. Contact Murus for full details.

**Product Testing and Certification**
Listed with **ICC-NTA**.

NEOPOR® is a registered trademark of BASF SE.



## THE MURUS OSB-2100/GPS STRUCTURAL INSULATED PANEL

| Series | 2145GPS | 2165GPS | 2185GPS | 21105GPS | 21125GPS | 21150GPS |
|---|---|---|---|---|---|---|
| OVERALL THICKNESS (inches) | 4-5/8 | 6-1/2 | 8-1/4 | 10-1/4 | 12-1/4 | 15 |
| WIDTH (inches) | 48 or 96 | * | * | * | * | 48 |
| STANDARD LENGTHS (feet) | | | | | | |
| (48 inch Widths) | 8 ,9, 10, 12, 14, 16, 18, 20, 22, 24 | | | | | |
| (96 inch Widths) | up to 24 | | | | | |
| WEIGHT (lbs/sf) | 3.60 | 3.80 | 4.00 | 4.20 | 4.40 | 4.70 |
| **Insulated Core:** NEOPOR® Expanded Polystyrene Foam | | | | | | |
| CORE FIRE RATING | | Class 1 | **ASTM E84 | | | |
| SYSTEM R-VALUE @ 75F | 18 | 28 | 36 | 45 | 55 | 67 |
| SYSTEM R-VALUE @ 40F | 19 | 29 | 38 | 48 | 58 | 72 |
| **Outside Skins:** 7/16 inch oriented strand board (OSB), PS2, Exposure-1 | | | | | | |

* Specifications or value is the same as the OSB-2145GPS
Class 1 is the highest rating available for combustible materials.
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