Master Wall Inc.®
Building a Culture of Excellence

PRODUCT DATA

NEOPOR® GPS INSULATION BOARD

Insulate your Master Wall® project with Neopor Plus GPS insulation board. Neopor Plus is the next generation of insulation board that is manufactured using graphite polystyrene (GPS) that gives maximum efficiency, cost-effectiveness and sustainability. Grey Neopor Plus GPS is comprised of many small pockets of air within a polymer matrix containing graphite. The graphite reflects radiant heat energy like a mirror, increasing the material's resistance to the flow of heat or R-value. Most polymer-based foams exhibit a greater ability to slow the movement of heat as the temperature decreases.

FEATURES & BENEFITS

- Continuous Insulation for Wall Assemblies
- Improves radiant heat resistance
- Reduces air movement in wall
- Controls dew point / moisture condensation in wall
- Long lasting, strong stable
- Cost effective
- GREENGUARD Gold Certified
- LEED® Rated
- Increased Compressive Strength—10 psi per ASTM C578

Packaging/Storage

144 board foot bundles* wrapped in plastic. Store on jobsite protected from the elements

Board Thickness & Size

Typical Maximum 4″ (102 mm)
Minimum 3/4″ (19.1 mm)
Drainage Board 1.5” (38.2 mm)+

Board width, max.: 24″ (610 mm)
Board length, max.: 48″ (1219 mm)

Coverage by Typical Thickness

3/4” (19.2 mm):
24 pcs, 192 sf (17.84 m^2)

1” (25.2 mm):
18 pcs, 144 sf (13.38 m^2)

1-1/2” (38.2 mm):
12 pcs, 96 sf (8.92 m^2)

2” (50.8 mm):
9 pcs, 72 sf (6.69 m^2)

3” (76.2 mm):
6 pcs, 48 sf (4.46 m^2)

4” (101.6 mm):
5 pcs, 40 sf (3.72 m^2)

*Varies by manufacturer facility

Application Procedure

Job Conditions - Follow directions on adhesive data sheets. Mechanical attachment of insulation boards may be performed at lower temperatures over a dry surface.

Temporary Protection – Provide temporary and permanent protection to prevent water entry behind the system.

Substrate Preparation – Applications must be to an approved substrate with a maximum variation tolerance of 1/4" in 10'-0" (6.4 mm in 3.05 m). Contact Master Wall for approved substrates and recommended attachment methods.

Application

The Insulation Board can be easily cut using handsaws, power saws, sharp knives, or thermal cutting tools. Rasping of the Insulation Board is completed with 12 grit sandpaper, manually or with air or electric rasping machines.

Follow data sheet recommendations for adhering insulation board to approved substrates. For adhesive attachment provide additional attachment as noted on the Neopor data sheet while the adhesive is still wet. For full mechanical attachment, fasten the Insulation Board to the approved substrate using Wind-Lock Wind-Devil 2 retainers. See Master Wall System Details for more information. Fastening patterns shall be determined by the requirements of the geographical conditions of the area, local code requirements, and the performance of the fasteners, retainers and their test results in conjunction with the specified substrate and the thickness of insulation board specified for use. Minimum 1" (25.2 mm) thickness for mechanically attached systems.

Install insulation board on the wall according to specification requirements. For further information and details, see the Master Wall System Application Instructions.

Cool Weather Precautions

Adhesive applications during cooler weather conditions require additional precautions as the insulation board may curl prior to adhesive set. During cooler weather the following procedures will need to be used:

- *Adhere insulation board with Quick Set MBB adhesive.*
- ***Mechanically fasten board with support fasteners as noted on the Neopor data sheet while the adhesive is still wet.***

Limitations

The minimum required thickness for insulation board in the Master Wall Aggre-flex EIF System and Rollershield Drainage CIFS® is ¾" (19.2 mm) at any location on the wall.

Do not cover Neopor® insulation either stored (factory wrapped or unwrapped), or partially installed, with dark colored (non-white), or clear (non-opaque) coverings and leave it exposed to the sun. Examples of such coverings include but are not limited to filter fabrics, membranes, temporary tarps, clear polyethylene, etc. If improperly covered, and exposed to the right combination of sun, time and temperature, Neopor® insulation deformation damage may occur rapidly.

Insulation board shall not be used in interior applications.

Residential applications require a secondary water barrier with the option of flat insulation board with profiled water barriers or drainage insulation board. See Aggre-flex Drainage Details for insulation board construction.
Product description information and basic uses etc.

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PO Box 397 • Fortson • GA • 31808 • 800-755-0825 • masterwall.com

Neopor® GPS EIFS Overview

Overview:

The Neopor GPS Plus continuous exterior insulation foam product, which is graphite enhanced and offers superior thermal performance compared to other insulation materials. Neopor is widely used in the United States, Canada and Europe in a variety of applications including insulated stucco, siding, concrete forms, roofing, slabs on grade, residential sheathing, and EIFS.

Code Compliance:

Neopor is manufactured under a stringent industry leading quality program in UL Evaluation Report UL ER5817-02 and ICC-ES Report ESR-3463. Additionally, Neopor is approved for use in certain NFPA 285 approved wall assemblies.

Product Protection:

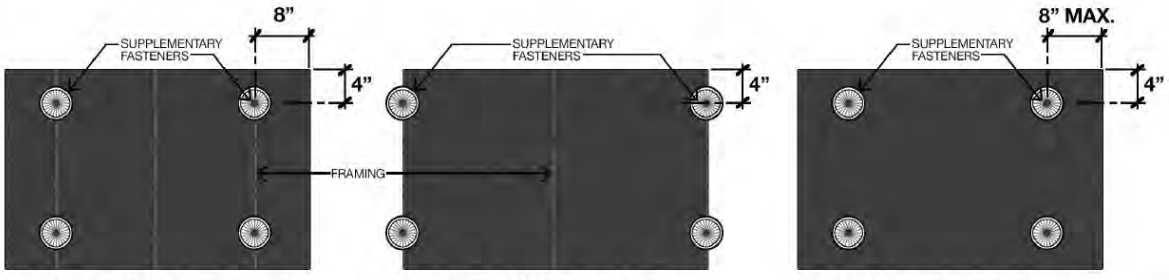
Like any building product material, Neopor insulation boards must be protected from the environment including reflection produced by the sun. Opaque covering is highly recommended such as white or blue tarps. Do not use clear stretch wraps. Please see storage and handling bulletin for additional information.

Fastening:

For future EIFS projects, the specification will indicate that Neopor GPS Plus is to be secured with supplementary mechanical fasteners immediately following board placement, while adhesive is still wet. Neopor may experience a slight curl under certain environmental conditions shortly after it is applied but prior to setting of the cementitious base coat adhesive; the fasteners temporarily secure the board while the cementitious base coat adhesive develops its final properties.

Testing and experience has demonstrated that once the cementitious base coat adhesive used to attach the Neopor GPS Plus has cured, a tenacious bond is formed with the substrate that provides long-term performance of the finished system.

Wind-lock Wind-Devil 2 plates (www.wind-lock.com) or equal, with appropriate type and length with corrosion resistant fasteners can be installed into framing or masonry. Fasteners can remain permanently in place. Recommended fastener frequency is shown below.



16" O.C. WOOD OR STEEL FRAMING (FRONT ELEVATION)

24" O.C. WOOD OR STEEL FRAMING (FRONT ELEVATION)

CONCRETE OR UNIT MASONRY (FRONT ELEVATION)

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Neopor®

Installation:
As per system supplier installation instructions.

Environment:
Products made of Neopor have zero ozone-depletion potential and are GREENGUARD Gold certified for indoor air quality.

Availability:
Supplied across North America from BASF Neopor authorized manufacturers listed under UL ER 5817 and ICC ESR 3463 or visit our website:

www.Neopor-Insulation.com

Physical Properties

Thermal Resistance	°F·ft2·h/BTU (°C·m2/W) at 75°F	R-5	R-7.5	R-10
Type I	ASTM C578 Classification			
Compressive Resistance	at yield of 10% deformation in psi (actual)	10	10	10
Vapor Permeance	Max perm (ng/Pa·s·m2) per 1 inch	4.0	4.0	4.0
Water Absorption	Max volume % absorbed	1.1	1.1	1.1
Density	lbs./ ft^3 (min)	0.90	0.90	0.90
Type VIII	ASTM C578 Classification			
Compressive Resistance	at yield of 10% deformation in psi (actual)	14	14	14
Vapor Permeance	Max perm (ng/Pa·s·m2) per 1 inch	3.1	3.1	3.1
Water Absorption	Max volume % absorbed	1.1	1.1	1.1
Density	lbs./ ft^3 (min)	1.15	1.15	1.15
Type II+	ASTM C578 Classification			
Compressive Resistance	at yield of 10% deformation in psi (actual)	20	20	20
Vapor Permeance	Max perm (ng/Pa·s·m2) per 1 inch	3.1	3.1	3.1
Water Absorption	Max volume % absorbed	1.1	1.1	1.1
Density	lbs./ ft^3 (min)	1.45	1.45	1.45
Flame Spread	Index	5	5	5
Smoke Development	Index	25	25	25
Max Use Temperature	Maximum use temperature in °F	165	165	165

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