



UL Solutions Evaluation Report

UL ER7260-01

Issued: 2015-03-31

Revised: 2025-08-20

Visit the UL Solutions [Product iQ® database](#) for current status of report.

UL Category Code: ULEX – Thermal Protection

CSI MasterFormat®

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION

Sub-level 2: 07 20 00 - Thermal Protection

Sub-level 3: 07 21 00 - Thermal Insulation

Sub-level 4: 07 21 13 - Board Insulation

Sub-level 3: 07 22 00 - Roof and Deck Insulation

Sub-level 4: 07 22 16 - Roof Board Insulation

Sub-level 3: 07 25 00 - Weather Barriers

Sub-level 3: 07 27 00 - Air Barriers

DIVISION: 31 00 00 - Earthworks

Sub-level 3: 31 23 00 - Excavation and Fill

Sub-level 4: 31 23 23 - Fill



UL Solutions Evaluation Report

Company:

Cellofoam North America Inc
1917 Rockdale Industrial Blvd
Conyers, GA 30012 USA
www.cellofoam.com

1. Subject:

Plain, non-laminated expanded polystyrene: **Cellofoam EPS Insulation, Cellofoam EIFS**

Laminated expanded polystyrene board: **Poly Shield®, PermaBG+™**

Geofoam: **Cellofoam EPS15, Cellofoam EPS19, Cellofoam EPS22, Cellofoam EPS29, Cellofoam EPS39, Cellofoam EPS46**

Expanded polystyrene board faced on one side with a glass mat facing: **Cellofoam FR Composite**

2. Scope of evaluation

- 2024, 2021 *International Building Code*® (IBC)
- 2024, 2021 *International Residential Code*® (IRC)
- 2024, 2021 *International Energy Code*® (IECC)
- ICC-ES Acceptance Criteria for Quality Documentation (AC10)
- ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12)
- ICC-ES Acceptance Criteria for Foam Plastic Sheathing Panels used as Water Resistive Barriers (AC71)
- ICC-ES Acceptance Criteria for Termite Resistant Foam Plastic (AC239)
- ICC-ES Acceptance Criteria for Rigid Cellular Polystyrene (RCPS) Geofoam used in Interior Floor Applications (AC452)

The products were evaluated for the following properties, where indicated in Table 1 and elsewhere in this report.

- Surface Burning Characteristics (UL 723)
- Physical Properties (ASTM C578, ASTM D6817, ASTM E2430)
- Roof Deck Construction Material with Resistance to Internal Fire Exposure (UL 1256)
- Roofing Systems for Exterior Fire Exposure (UL 790)
- Tests For Uplift Resistance of Roof Deck Assemblies (UL 580)
- For Use Without a Thermal Barrier – Special Approval (NFPA 286)
- Water-resistive Barrier (AC71)
- Air Barrier (ASTM E2178)
- Flammability Testing for Use in Attics and Crawl Spaces (AC12, App. A and B)
- Termite-Resistance, (AC239)
- For Use on Exterior Commercial Walls (NFPA 285)
- Foam Plastic – Special Approval (UL 1715)
- Fire-resistance-rated Construction (UL 263)

Table 1 – Properties Evaluated

Properties Evaluated	Cellofoam EPS Insulation and Cellofoam EIFS (Non-Laminated EPS)	Poly Shield® and PermaBG+™ (Laminated EPS)	Cellofoam FR Composite	Cellofoam EPS Geofoam Cellofoam EPS15, Cellofoam EPS19, Cellofoam EPS22, Cellofoam EPS29, Cellofoam EPS39, Cellofoam EPS46
Surface Burning Characteristics	X	X	X (Foam core)	X
Physical Properties (ASTM C578)	X	X	X (Foam core)	X
Physical Properties (ASTM E2430)	X			
Physical Properties (ASTM D6817)				X
Roofing Systems for Exterior Fire Exposure	X	X	X	
Roof Deck Construction Materials for Interior Fire Exposure	X			
Uplift Tests for Roof Covering Systems	X			
Flammability Testing for Use in Attics and Crawl Spaces	X	X		
Water-Resistive Barrier		X		
Air Barrier	X	X		
Termite Resistance ¹	X (with insect treatment)	X (Foam core with insect treatment)	X (Foam core with insect treatment)	X (with insect treatment)
Foam Plastic - Special Approval (UL 1715)				X ²
For Use Without a Thermal Barrier – Special Approval (NFPA 286)	X ³	X ³		
Exterior Walls (NFPA 285)	X	X		
Fire-resistance-rated Construction	X			

¹Products containing the termite resistant additive are identified as such on the product markings.

²Limited to use as lightweight structural fill in floor cavities when covered on all sides by a minimum of 1 inch thick masonry or concrete.

³Complies with the acceptance criteria for NFPA 286 as referenced in IBC 803.1.1.1, 2024 IRC R303.6 and 2021 IRC R316.6

3. Referenced documents

ICC-ES:

- ICC-ES Acceptance Criteria for Quality Documentation (AC10)
- ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12)
- ICC-ES Acceptance Criteria for Foam Plastic Sheathing Panels used Water- Resistive Barriers (AC71)
- ICC-ES Acceptance Criteria for Termite-Resistant Foam Plastics (AC239)
- ICC-ES Acceptance Criteria for Rigid Cellular Polystyrene (RCPS) Geofoam used in Interior Floor Applications (AC452)

ANSI/UL:

- ANSI/UL263, Fire Tests of Building Construction and Materials
- ANSI/UL580, Tests for Uplift Resistance of Roof Deck Assemblies
- ANSI/UL723, Test for Surface Burning Characteristics of Building Materials
- ANSI/UL790, Standard Test Methods for Fire Tests of Roof Coverings
- ANSI/UL1256, Standard for Fire Test of Roof Deck Constructions
- ANSI/UL1715, Fire Test of Interior Finish Material

ASTM:

- ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- ASTM D6817/D6817M, Standard Specification for Rigid Cellular Polystyrene Geofoam
- ASTM D7180/D7180M, Standard Guide for Use of Expanded Polystyrene (EPS) Geofoam in Geotechnical Projects
- ASTM D7557/D7557, Standard Practice for Sampling of Expanded Polystyrene Geofoam Specimens
- ASTM E2178, Standard Test Method for Air Permeance of Building Materials
- ASTM E2430/E2430M, Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for Use in Exterior Insulation Finish Systems (EIFS)

NFPA:

- NFPA 285, Standard Fire Test for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Assemblies Containing Combustible Components
- NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

UL Solutions Evaluation Report

4. Uses

4.1 General

The products described in this report are used as nonstructural insulation on the interior or exterior of above grade walls, on the interior or exterior of below grade walls, below concrete slabs, around concrete slab edges, or as roof insulation. Installation shall be in accordance with Section 6 of this report.

Cellofoam EPS Insulation, Poly Shield® and PermaBG+™ may be used on walls in attics and crawl spaces when installation is in accordance with Section 6.4.

Cellofoam EPS Insulation, Poly Shield®, and PermaBG+™ may be used as a vapor retarder when installation is in accordance with Section 6.2.

Cellofoam EPS Insulation, Poly Shield®, PermaBG+™ and Cellofoam FR Composite may be used in commercial and residential roofing systems classified for use in Class A, B, and C assemblies, when installed in accordance with Section 6.3. Refer to UL Certification Information for File R7260, Roofing Systems (TGFU) for applicable coverage and details of the roof assembly.

When used on the exterior of above grade walls, where indicated in Table 1, Cellofoam EPS Insulation, Poly Shield®, and PermaBG+™ shall be installed in accordance with Section 6.6.

Cellofoam EPS Insulation, Poly Shield® and PermaBG+™ is approved for use on interior walls of residential basements without a prescriptive thermal barrier based on fire testing in accordance with IBC Section 2603.9 and IRC Section R303.6, as described in Section 6.5.

Poly Shield® and PermaBG+™ may be used as an alternative to the water-resistive barriers specified in the codes when installed in accordance with Section 6.7.

Cellofoam EPS Insulation and Cellofoam EIFS may be used as a component in Exterior Insulation and Finish Systems (EIFS).

4.2 Cellofoam EPS Geofoam

Cellofoam EPS15, Cellofoam EPS19, Cellofoam EPS22, Cellofoam EPS29, Cellofoam EPS39, and Cellofoam EPS46 may be used as lightweight structural fill in floor cavities. Installation shall be in accordance with Section 6.8 of this report.

4.3 EPS Products with Insect Treatment

Cellofoam EPS Insulation, Poly Shield®, PermaBG+, and Cellofoam EPS Geofoam which has been enhanced with insect treatment is designed for use where termites are a concern. In areas where the probability of termite infestation is defined as “very heavy”, the EPS insulation shall be enhanced with Preventol® and must be installed in accordance with IBC Section 2603.8 or 2024 IRC Section R305 or 2021 IRC Section R318, as applicable. Use is limited to areas exposed to the Reticulitermes and Formosan Subterranean termite genus. Installation shall be in accordance with Section 6.9 of this report.

5. Product description

5.1 General

The products, Cellofoam EPS Insulation, Poly Shield®, PermaBG+™, Cellofoam EIFS, Cellofoam EPS15, Cellofoam EPS19, Cellofoam EPS22, Cellofoam EPS29, Cellofoam EPS39, and Cellofoam EPS46 covered under this report are molded, closed-cell expanded polystyrene having a flame spread index not exceeding 25 and a smoke developed index not exceeding 450 for thicknesses up to 6 inches, when tested in accordance with UL 723 as required by IBC Section 2603.3 or 2024 IRC Section R303.3 or 2021 IRC Section R316.3, as applicable.

The expanded polystyrene foamed plastic core for product Cellofoam FR Composite also has a flame spread index not exceeding 25 and a smoke developed index not exceeding 450 for thicknesses up to 6 inches, when tested in accordance with UL 723 as required by IBC Section 2603.3 or 2024 IRC Section R303.3 or 2021 IRC Section R316.3, as applicable.

5.2 Cellofoam EPS Insulation

Cellofoam EPS Insulation and expanded polystyrene foamed plastic core for Poly Shield®, PermaBG+™ and Cellofoam FR Composite have been found to comply with ASTM C578. The boards are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 lbs/ft³ and have ASTM C578 designations of Type I, Type VIII, Type II, Type IX, Type XIV, and Type XV, respectively. See excerpt from ASTM C578 below for minimum Thermal Resistance values for each Type:

Table 2 – Thermal Resistance Values

ASTM C578 Type	Density, minimum, lb/ft³	Thermal Resistance ¹ , minimum, ° F-ft²-h/Btu
I	0.90	3.6
VIII	1.15	3.8
II	1.35	4.0
IX	1.80	4.2
XIV	2.40	4.2
XV	3.00	4.3

¹Thermal resistance (R) values are based on tested values at 1 inch thickness and 75°F mean temperature and must be multiplied by the installed thickness for thicknesses greater than 1 inch.

5.3 Cellofoam EIFS

Cellofoam EIFS is intended for use in EIFS systems and has been found to comply with ASTM C578 and ASTM E2430. The EPS insulation boards are manufactured at a minimum density of 0.90 lbs/ft³ and have the ASTM C578 designation of Type I.

5.4 Poly Shield® and PermaBG+™

Poly Shield® and PermaBG+™ consist of Cellofoam EPS Insulation laminated with a polymeric film facing or a metalized polymeric film facing. The EPS foamed plastic cores are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 lbs/ft³ and have ASTM C578 designations of Type I, Type VIII, Type II, Type IX, Type XIV, and Type XV, respectively. Poly Shield® and PermaBG+™ are manufactured in solid boards and fan-fold configurations.

5.5 Cellofoam FR Composite

Cellofoam FR Composite insulation boards consist of Cellofoam EPS Insulation laminated with a fiberglass mat facing on one side. This product can be used in commercial and residential roofing systems classified for use in Class A, B, and C assemblies. The EPS foamed plastic cores are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 lbs/ft³ and have ASTM C578 designations of Type I, Type VIII, Type II, Type IX, Type XIV, and Type XV, respectively.

5.6 Cellofoam EPS Geofoam Blocks

Cellofoam EPS Geofoam Blocks have been found to comply with ASTM D6817. The EPS Geofoam blocks are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 2.85 lbs/ft³ and have ASTM D6817 designations of EPS15, EPS19, EPS22, EPS29, EPS 39, and EPS 46, respectively. See excerpt from ASTM D6817, Table 3 below.

Table 3 – ASTM D6817 Physical Property Requirements for RCPS Geofoam

ASTM D6817 Type	Density, minimum, lb/ft ³	Compressive resistance, minimum, psi at 1% strain
EPS15	0.90	3.6
EPS19	1.15	5.8
EPS22	1.35	7.3
EPS29	1.80	10.9
EPS39	2.40	15.0
EPS46	2.85	18.6

5.7 EPS Products with Insect Treatment

Cellofoam EPS Insulation and Cellofoam EPS Geofoam products with insect treatment are treated for termite resistance and are similar to the Cellofoam EPS Insulation and Cellofoam EPS Geofoam described in Section 5.2, 5.3, 5.4, 5.5 and 5.6 respectively. For laminated film EPS products (Poly Shield® and PermaBG+™) or glass mat facer (Cellofoam FR Composite), the EPS foam plastic core may be treated with insect treatment for termite resistance.

6. Installation

6.1 General

The products described in this report are installed in accordance with the manufacturer's published installation instructions and this evaluation report. The manufacturer's published installation instructions and this report must be strictly adhered to, and a copy of the instructions shall be available on the jobsite during installation.

These products must be attached to the structure in a manner that will hold the insulation securely in place. The insulation boards must not be used structurally to resist any applied or design loads, inclusive of transverse, axial and/or shear loads.

The interior of the building must be separated from the insulation with a thermal barrier as required by IBC Section 2603.4 or 2024 IRC Section R303.4 or 2021 IRC Section 316.4, as applicable, except as described in Sections 6.4 and 6.5.

A water-resistive barrier in compliance with IBC Section 1404.2 or IRC Section R703.2 is required and, when applied over wood-based sheathing, must comply with IBC Section 2510.6 or IRC Section R703.6.3.

6.2 For Use as Vapor Retarders

The products described in this report may be used as vapor retarders based on the maximum perm values for the EPS foam described in Table 4, when required in accordance with the applicable sections of the IBC, IRC and IECC. Vapor retarders are classified as follows:

Class I: 0.1 perm or less Class II: $0.1 < \text{perm} \leq 1.0$ perm Class III: $1.0 < \text{perm} \leq 10$ perms

Table 4 – Water Vapor Permeance of Cellofoam EPS Insulation

ASTM C578 Type	Density, minimum, lb/ft ³	Water vapor permeance ¹ , maximum, perm
I	0.90	5.0
VIII	1.15	3.5
II	1.35	3.5
IX	1.80	2.5
XIV	2.40	2.5
XV	3.00	2.5

¹Water vapor permeance values are maximum values for 1 inch thick specimens when tested in accordance with ASTM C578 and ASTM E96 under desiccant conditions. Lower values will result for thicker materials. Where water vapor permeance is a design issue, consult manufacturer.

6.3 For Use as Roof Insulation

Where indicated in Table 1, these products are used as roofing insulation as follows:

- As part of a UL Classified Class A, B, or C roof-covering assembly in accordance with UL 790
- As part of a UL Classified Roof Deck Construction in accordance with UL 1256
- As part of a UL Classified Roof Deck Construction for uplift resistance in accordance with UL 580

6.4 For Use in Attics and Crawl Spaces

Cellofoam EPS Insulation, Poly Shield® and PermaBG+™ may be used on walls of attics and crawl spaces, without the coverings listed in IBC Section 2603.4.1.6 or 2024 IRC Section R303.5.3 and R303.5.4 or 2021 IRC Section R316.5.3 and R316.5.4, as follows:

- Entry to the attic or crawl space is limited to service of utilities, and no storage is permitted. Utilities include, but are not limited to, mechanical equipment, electrical wiring, fans, plumbing, gas or electric hot water heaters, and gas or electric furnaces.
- Attic ventilation is provided when required by IBC Section 1202.2 or IRC Section R806, as applicable.
- There are no interconnected attic or crawl space areas
- Air in the attic or crawl space is not circulated to other parts of the building.
- Under-floor (crawl space) ventilation is provided when required by IBC Section 1202.4 or IRC Section R408.2, as applicable.
- Combustion air is provided in accordance with IMC Section 701.
- Cellofoam Insulation boards are limited to a maximum thickness and density tested, Table 5 below:

Table 5 – Maximum Densities and Thicknesses for use in Attics and Crawlspace without a Code-prescribed Ignition Barrier

ASTM C578 Type	Density, maximum, lb/ft ³	Thickness, maximum, inch
I	1.14	4.00
VIII	1.34	3.25
II	1.79	2.66
XI	2.39	2.00
XIV	2.99	1.66
XV	3.30	1.25

6.5 For Use in Residential Basements:

Cellofoam EPS Insulation, Poly Shield® and PermaBG+™ may be installed on wall surfaces of residential basements with no thermal or ignition barrier applied to the foam plastics, based on testing in accordance with NFPA 286 and IBC Section 2603.9 or 2024 IRC Section R303.6 or 2021 IRC Section R316.6, when all other requirements of the building code for that building are met. Insulation boards are limited to the following maximum densities and thicknesses:

Table 6 – Maximum Densities and Thicknesses for use in Residential Basements Without a Code-Prescribed Ignition Barrier

ASTM C578 Type	Density, maximum, lb/ft ³ (kg/m ³)	Thickness, maximum, inch (mm)
I	1.00 (16)	4 (102)
VIII	1.25 (20)	3-1/4 (82)
II	1.50 (24)	2-2/3 (68)
IX	2.00 (32)	2 (51)
XIV	2.50 (36)	1-2/3 (42)
XV	3.00 (48)	1-1/4 (32)

6.6 For Use on the Exterior of Above Grade Walls

Cellofoam EPS Insulation, Poly Shield® and PermaBG+™ may be used on the exterior of above grade walls as follows:

- Exterior Walls of One- and Two-Family Dwellings in accordance with the IRC.
- Exterior walls of one story buildings of Types I, II, III, or IV construction in accordance with IBC Section 2603.4.1.4.
- Exterior walls of Type V construction in accordance with IBC Section 2603.2, Section 2603.3, and Section 2603.4.
- Exterior walls of buildings more than one story of Types I, II, III, or IV construction in accordance with IBC Section 2603.5 when part of an exterior wall system in accordance with NFPA 285. See Figure 1 and 7, which outlines the list of allowable wall construction elements. Note that one element from each “Wall Component” must be selected, unless “None” is an available selection.

Table 7 – NFPA 285 Compliant Assembly Options

Wall Component	Options
Base Wall Use 1, 2, or 3	1) Cast Concrete Walls 2) CMU Cast Concrete Walls 3) 25 GA (min) 3-5/8" (min) steel studs spaced 24" oc (max) a. Any 5/8" type X gypsum wallboard interior b. Any 1/2" Exterior gypsum sheathing c. Lateral bracing every 4 ft. vertically
Fire Stopping at Floor Lines	Any approved 4.0 pcf density mineral fiber based safing insulation in each stud cavity at floor line. Safing thickness must match stud cavity depth. Use mineral fiber insulation manufacturer instructions for installation
Cavity Insulation Use 1, 2, or 3	1) None 2) Any Class A, B, or C Fiberglass batt insulation (faced or unfaced) 3) Any non-combustible insulation
Exterior Sheathing	1/2" or thicker exterior grade gypsum sheathing
Water Resistive Barrier or Air Barrier over Base Wall Surface Use 1 or 2	1) None 2) Any of the following applied per individual manufacturer instruction: - Tremco EXOAir 230 - BASF Enershield HP - BASF Enershield I - Grace Perm-A-Barrier VPS - DuPont Fluid Applied WB - DuPont Tyvek Commercialwrap (1 or 2 layers) - CCW Barritech NP - CCW Barritech VP
Cellofoam EPS Exterior Insulation Use 1, 2, 3, 4, 5, 6, or 7	1) None 2) ASTM C578, Type I, 10-3/4 in. maximum thickness 3) ASTM C578, Type VIII, 8-1/4 in. maximum thickness 4) ASTM C578, Type II, 7 in. maximum thickness 5) ASTM C578, Type IX, 5-1/4 in. maximum thickness 6) ASTM C578, Type XIV, 4 in. maximum thickness 7) ASTM C578, Type XV, 3-1/4 in. maximum thickness
WRB Over Exterior Insulation	None
Exterior Cladding Use either 1, 2, 3, 4, 5, 6, 7, or 8	1) Brick – nominal 4" clay brick or veneer with maximum 2" air gap cavity behind the cladding. Brick with ties / anchors spaced 24" oc (max) 2) Concrete – minimum 2" thick with a maximum 2" air gap cavity behind the cladding 3) Concrete Masonry Units – minimum 4" thick with maximum 2" air gap cavity behind the cladding 4) Limestone – minimum 2" thick with non-open joints installation technique such as shiplap 5) Natural Stone Veneer – minimum 2" thick with non-open joints installation technique such as shiplap 6) Precast Artificial Stone – minimum 1-1/2" thick complying with ICC-ES AC51 with non-open joint installation technique 7) Terra Cotta Cladding – minimum 1-1/4" thick (solid) with non-open joint installation technique such as shiplap 8) Stucco – minimum 3/4" thick exterior cement plaster and lath
Window Header	Flashing composed of 25 GA (min) sheet metal (steel) with 1" thick, 4 pcf mineral wool over the interior of the sheet metal

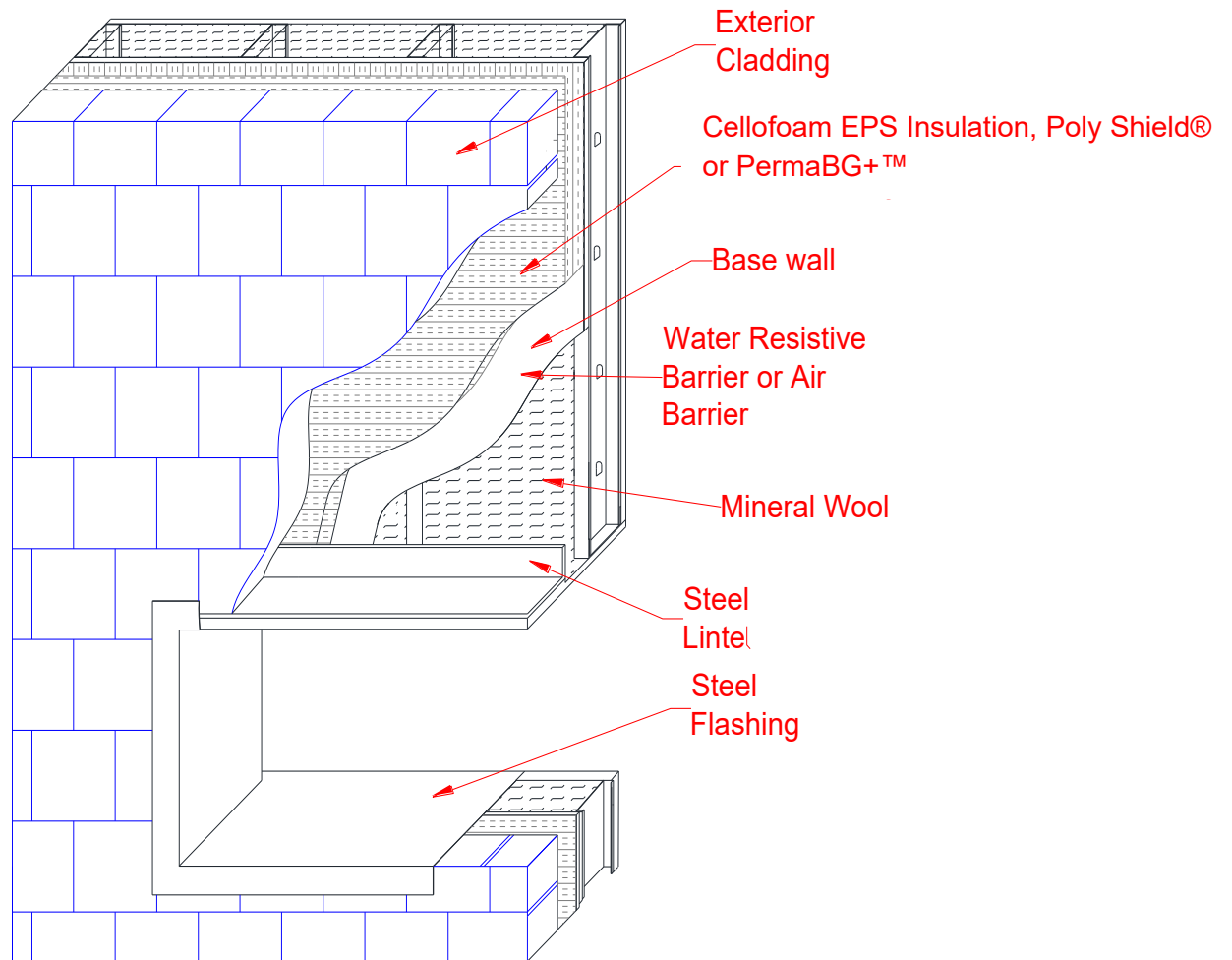


Figure 1 – NFPA 285 Commercial Wall Assembly

6.7 For Use as a Water-Resistive Barrier

Poly Shield® or PermaBG+™ combined with Cellofoam PermaSeal Tape may be used as an alternative to the water resistant barrier required by IBC Section 1404.2 and IRC Section R703.2 when installed with this Section.

PolyShield® or PermaBG+™ boards must be installed directly to framing spaced a maximum of 24 inches on center, except where further limited by the requirements for a wall covering. When Poly Shield® or PermaBG+™ boards with square or tongue-and-groove joints along the long edge are installed vertically, the joints must occur over framing. PolyShield® or PermaBG+™ with tongue-and-groove joints on the long edges when oriented horizontally must be installed with the tongue edges facing upward.

Fasteners (corrosion-resistant) used to attach the boards to framing must be either 6d ring shank nails with a ¹⁵/₁₆-inch-diameter plastic washer, or equivalent, spaced at 12 inches OC or No. 16 gage staples having a 1 inch wide crown spaced at 6 inches OC. Joints between boards, corners created with the board and fastener locations must be taped with Cellofoam PermaSeal Tape centered over the joint, corner and fastener. A minimum 0.019 inch corrosion-resistance weep screed with a vertical attachment flange measuring a minimum of 3-½ inches must be provided at the bottom of the wall. The installation of the weep screed must be in accordance with IBC Section 2512.1.2 or IRC Section R703.7.2.1 as applicable.

Flashing of flanged window penetrations must be installed in accordance with IBC Section 1404.4. The flashing tape must completely cover the framing sill and extend a minimum of 8 inches up the sides of the opening and 6 inches onto the face of the Poly Shield® or PermaBG+™ at the front of the window opening.

Flashing of small penetrations (e.g. pipes) must be with a silicone sealant complying with ASTM C920. Flashing of other penetrating items must be in accordance with the wall covering manufacture's published installation instructions.

6.8 For use in a Fire-Resistance Rated Roof-Ceiling Design

Cellofoam EPS Insulation has been evaluated for fire resistance (roof-ceiling) when used as a part of the UL Fire Resistance Design Nos P231, P509, P708, P810, P905, P906, P910, P911, P913, P914, P916, P917, P919, P920, P922, P269, P737, P834 and P941. Fire resistance ratings are only applicable when the assemblies are constructed in accordance with the published designs.

6.9 Cellofoam EPS Geofoam Blocks

Installation of Cellofoam EPS Geofoam Blocks shall be in accordance with the approved project plans and/or approved product placement drawings. The Cellofoam EPS Geofoam Blocks shall be placed tightly together on a level surface, ground or structural slab and may be stacked in a single layer or in multiple layers. All joints or seams between the Cellofoam EPS Geofoam Blocks shall be staggered per layer.

To meet applicable building code requirements, the Cellofoam EPS Geofoam Blocks that are less than 4 inches in thickness must be separated from the interior of the building with a thermal barrier as required by IBC Section 2603.4 or IRC Section R303.4, as applicable.

To meet applicable building code requirements, the Cellofoam EPS Geofoam Blocks that are greater than 4 inches in thickness, must be separated from the interior of the building with a minimum 1 inch concrete or masonry material on all faces.

The Cellofoam EPS Geofoam Blocks are limited to applications where the geofoam will not be subject to direct exposure to hydrocarbons.

6.10 EPS Product with Insect Treatment

Cellofoam EPS Insulation, Poly Shield®, PermaBG+™ or Cellofoam EPS Geofoam products with an insect treatment additive are allowed within 6 inches of grade, or below grade. In areas where the probability of termite infestation is defined as “very heavy”, Cellofoam EPS Products enhanced with Preventol® must be installed in accordance with IBC Section 2603.8 and 2024 IRC Section 305.4 or 2021 IRC Section R318.4, as applicable. Use is limited to areas exposed to the Reticulitermes and Formosan Subterranean termite genus.

7. Conditions of use

Cellofoam North America Inc. (Cellofoam) is an expanded polystyrene (EPS) foam manufacturer. It is beyond the manufacturer’s scope, the scope of this report, and beyond the manufacturer’s responsibility as manufacturer of EPS products to provide design services for the specific use or application of the EPS products. Users of the EPS products shall consult with appropriate design or engineering experts to determine the correct type and specification of EPS product required to meet the project requirements, as well as the applicable jurisdictional building codes.

The products described in this report comply with, or are suitable alternatives to what is specified in, the codes listed in Section 2 of this report, subject to the following conditions:

- 7.1** The products must be manufactured, identified, and installed in accordance with this report, the manufacturer’s published installation instructions, and the applicable code. If there is a conflict between the manufacturer’s published installation instructions and this report, this report governs.
- 7.2** In areas where the probability of termite infestation is defined as “very heavy”, the products described in this report that have not been treated for termite resistance must be installed in accordance with IBC Section 2603.8 or 2024 IRC Section R305.4 or 2021 IRC Section R318.4, as applicable.
- 7.3** The products described in this report must be separated from the building interior with a thermal barrier, such as ½ in. gypsum board, as required by IBC Section 2603.4 or 2024 IRC Section R202.4 or 2021 IRC Section 316.4, as applicable. Exceptions are noted in Sections 6.4 and 6.5.

7.4 Cellofoam EPS Insulation Products

For a listing of applicable UL Solutions Certifications see UL Solutions' Product iQ® for the following categories:

Cellofoam EPS Insulation and Cellofoam EIFS

- Foamed Plastic, UL Classified for surface burning characteristics in accordance with UL723 ([BRYX](#)).
- Polystyrene Thermal Insulation, Rigid Cellular, UL Classified in accordance with ASTM C578 and ASTM E2430 ([QORW](#)).
- Class A, B, or C roof-covering assemblies UL Classified in accordance with UL 790 ([TGUFU](#)).
- Roof Deck Constructions 110 and 155 for assemblies UL Classified in accordance with UL 580 and UL 1256 ([TJBX](#)).
- Foamed plastic evaluated as part of fire-resistance-rated assemblies P231, P509, P708, P810, P905, P906, P910, P911, P913, P914, P916, P917, P919, P920, and P922 Classified in accordance with UL 263 ([CCVW](#)).
- Exterior Wall System Components UL Classified in accordance with NFPA 285 (FWFO): [EWS0039](#)

Poly Shield® and PermaBG+

- Foamed Plastic, UL Classified for surface burning characteristics in accordance with UL723 ([BRYX](#)).
- Polystyrene Thermal Insulation, Rigid Cellular, UL Classified in accordance with ASTM C578 and ASTM E2430 ([QORW](#)).
- Class A, B, or C roof-covering assemblies UL Classified in accordance with UL 790 ([TGUFU](#)).

Cellofoam FR Composite

- Class A, B, or C roof-covering assemblies UL Classified in accordance with UL 790 ([TGUFU](#)).

UL Solutions Evaluation Report

7.5 Cellofoam EPS Geofoam Blocks

For interior applications of Cellofoam EPS15, Cellofoam EPS19, Cellofoam EPS22, Cellofoam EPS29, Cellofoam EPS39, and Cellofoam EPS46:

- Product thickness less than 4 inches must be separated from the building interior with a thermal barrier such as ½-inch thick gypsum board, as required by IBC Section 2603.4 or 2024 IRC Section R303.4 or 2021 IRC Section 316.4, as applicable.
- Product thickness greater than 4 inches must be separated from the building interior with a minimum 1 inch thick concrete or masonry on all faces as required by IBC Section 2603.4.1.1.

The design of the concrete or masonry covering is outside the scope of Cellofoam and this report. The design must comply with all applicable code requirements for the occupancy and type of construction for the specific project. Penetrations through the thermal barrier shall be subject to approval by the Authority Having Jurisdiction (AHJ).

All applied and design loads to be resisted by the Cellofoam EPS Geofoam Blocks must be determined in accordance with the IBC, as applicable, and shall not exceed the allowable resistive physical properties as noted in this report.

All construction documents specifying the Cellofoam EPS Geofoam Blocks must comply with the product requirements of this report. All design calculations, details, and product specifications for the specific applications must be furnished to the AHJ to verify compliance with this report and applicable codes. The documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

The use of the Cellofoam EPS Geofoam Blocks is limited to use in floor applications where the uniform and localized loading does not exceed the compressive resistance of the geofoam at 1% strain as determined in accordance with ASTM D6817. Additional design considerations are included in ASTM D7180 Standard Guide for Use of Expanded Polystyrene (EPS) Geofoam and ASTM D7557 Standard Practice for Sampling of Expanded Polystyrene Geofoam Specimens.

For a listing of applicable UL Certifications for Cellofoam EPS Geofoam Blocks, see the UL Solutions' Product iQ® for the following categories:

- Foamed Plastic, UL Classified for surface burning characteristics in accordance with UL723 ([BRYX](#)).
- Polystyrene Thermal Insulation, Rigid Cellular, UL Classified in accordance with ASTM D6817([QORW](#)).
- Foamed Plastic, UL Classified for Interior Building Construction in accordance with UL 1715 ([OERU](#)).

- 7.6** The products are manufactured at the following locations under the UL Solutions Certification and Follow-Up Service Program, which includes audits in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC 10.

Table 8 – Manufacturing Locations and Factory Identification

City, State, Country	Factory Identification
Conyers, GA, USA	014X
Orlando, FL, USA	013X
Whiteland, IN, USA	011X
Sallisaw, OK, USA	012X
Winchester, VA, USA	U-14
Gainesville, GA, USA	015X
Mexicali, Baja California, MX	1011
Rosarito, Baja California, MX	1012

8. Supporting evidence

- 8.1** UL Classification reports in accordance with ASTM C578, ASTM D6817, ASTM E2430, UL 263, UL 580, UL 723, UL 790, UL 1256, UL 1715, and NFPA 285.
- 8.2** Reports and analysis of wall fire tests in accordance with NFPA 285.
- 8.3** Data in accordance with ASTM E2178 Standard Test Method for Air Permeance of Building Materials.
- 8.4** Reports of room corner fire tests in accordance with NFPA 286 and AC12 Appendix A and B
- 8.5** Documentation of quality system elements described in AC10
- 8.6** Data in accordance with ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12)
- 8.7** Data in accordance with ICC-ES Acceptance Criteria for Foam Plastic Sheathing Panels used as Water Resistive Barriers (AC71)
- 8.8** Data in accordance with ICC-ES Acceptance Criteria for Termite Resistant Foam Plastics (AC239)

UL Solutions Evaluation Report

9. Identification

The products as described in this evaluation report are identified by a marking bearing the report holder's name (Cellofoam North America Inc.), the plant identification, the product designation, the UL Certification Mark, any required markings as specified in the applicable standards and the evaluation report number UL ER7260-01. The validity of the evaluation report is contingent upon this identification appearing on the product or UL Classification Mark certificate.

10. Use of UL Solutions Evaluation Report

- 10.1** The approval of building products, materials or systems is under the responsibility of the applicable authorities having jurisdiction.
- 10.2** UL Solutions Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.
- 10.3** The current status of this report, as well as a complete directory of UL Evaluation Reports may be found at UL.com via our UL Product iQ®:

UL Solutions Evaluation Reports

© 2025 UL LLC

This UL Solutions Evaluation Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the UL Solutions Listing or UL Solutions Classification Report that covers the subject product. The subject product's UL Solutions Listing or UL Solutions Classification is covered under a separate UL Solutions Report. UL Solutions disclaims all representations and warranties whether express or implied, with respect to this Report and the subject or product described herein. Contents of this Report may be based on data that has been generated by laboratories other than UL Solutions that are accredited as complying with ISO/IEC Standard 17025 by the International Accreditation Service (IAS) or by any other accreditation body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). The scope of the laboratory's accreditation shall include the specific type of testing covered in the test Report. As the accuracy of any non-UL Solutions data is the responsibility of the accredited laboratory, UL Solutions does not accept responsibility for the accuracy of this data.

UL Solutions Headquarters
333 Pfingsten Road
Northbrook, IL 60062-2096 USA
T: 847.272.8800
UL.com/Solutions