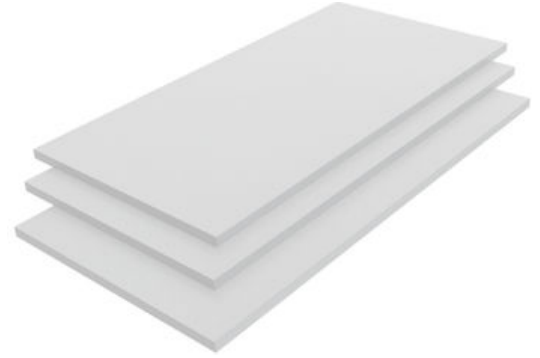


Terrafoam EPS

Expanded Polystyrene Insulation

Terrafoam EPS is a rigid insulation board manufactured from inert closed-cell expanded polystyrene (EPS). It meets or exceeds the requirements of CAN/ULC S701 Type 1, Type 2 and Type 3. Terrafoam EPS provides excellent resistance to freeze/thaw, low moisture absorption, zero capillarity, and stable long-term thermal performance because it contains only air and does not lose R-value over time. It is non-toxic, hypo-allergenic, and will not rot or support mold or mildew.

Terrafoam EPS is a cost-effective rigid insulation solution manufactured in a wide range of densities, sizes, and thicknesses to suit building code requirements and project-specific application needs. It contains no CFCs, HCFCs, or other refrigerant gases.



KEY BENEFITS

- Stable long-term R-value (no thermal drift)
- Excellent freeze / thaw durability
- Low moisture absorption
- Lightweight and easy to cut on site
- Available in a wide range of densities and thicknesses

Terrafoam is a breathable insulation product, permitting the transmission of water vapour. It can, therefore, be used as an external insulation for renovation and/or new construction without the potential for creating an exterior vapour barrier that would trap moisture in the wall cavity, causing serious building deterioration.

APPLICATIONS

- Perimeter insulation for grade beams and foundation walls
- Under concrete slabs on grade
- Frost protected shallow foundations
- Crawlspace
- Continuous exterior insulation
- Above-grade insulating sheathing under stucco and siding
- Masonry cavity walls
- Exterior Insulation Finish Systems (EIFS)
- Roofing insulation, including sloped, flat, and tapered applications
- Precast insulated wall assemblies
- Coolers, freezers, and ice arenas
- Landscaping and geotechnical applications
- Flotation applications
- Packaging, protection, and container linings

Storage, Handling and Protection

Terrafoam EPS must be protected from damage during transit and from UV degradation during storage and after installation. Storage areas should minimize damage and be kept away from heat, sparks, flames, and other ignition sources. Care should be taken to protect exposed product surfaces from reflective sunlight and prolonged solar exposure. Do not smoke in handling areas. When sawing or sanding, use approved eye protection and a dust mask, and use appropriate respiratory protection where dust levels are high.

CLASSIFICATIONS

Terrafoam EPS meets or exceeds CAN/ULC S701 and ASTM C578.

- CAN/ULC S701 Type 1 – 10 psi (70 kPa) compressive strength
- CAN/ULC S701 Type 2 – 16 psi (110 kPa) compressive strength
- CAN/ULC S701 Type 3 – 20.4 psi (140 kPa) compressive strength

SIZES

	Sheet Thickness	Sheet Size
Type-1,2,3	1/2" to 48" (12 mm to 1220 mm)	2' x 8' (610 x 2440 mm) 4' x 8' (1220 x 2440 mm)

Custom sizes are available.

Profiles

- Square edges are standard
- Shiplap edges, drainage slots, furring slots, and other custom profiles can be provided

PACKAGING

Packaging and bundle sizes vary by product type, thickness, and region. Please contact Beaver Thermal Solutions to confirm locally available packaging specifications and bundle sizes. Standard bundle styles include roofing, half-size, and standard bundles.

INSTALLATION

- Install products in accordance with the manufacturer's instructions for each specific application.
- Cover exposed insulation with a finish acceptable to local building authorities.

MAINTENANCE INSTRUCTIONS AND PROCEDURES

Product is incompatible with aromatic, aliphatic hydrocarbons, esters, amines, or anhydrous acids, which could cause degradation.

TECHNICAL DATA

Physical Property	Units Imperial (Metric)	ASTM Test Procedure	Type 1	Type 2	Type 3
Minimum Thermal Resistance (R-Value)	hr-ft ² ·°F/BTU per 1 in. (m ² ·°C/W per 25 mm)	C-177-93 @ 0°C (32°F)	4.07 (0.72)	4.40 (0.77)	4.62 (0.81)
		C-177-93 @ 24°C (75°F)	3.75 (0.65)	4.04 (0.70)	4.27 (0.74)
Compressive Strength (min)	psi (kPa)	D 1621-73	10 (70)	16 (110)	20.4 (140)
Capillary Action	—	—	none	none	none
Water Vapor Permeance (max)	perm-in (ng/Pa·s·m ²)	E 96-80	5.25 (300)	3.5 (200)	2.25 (130)
Water Absorption (max)	%	D 2842-69	6	4	2

TECHNICAL INFORMATION

Chemical Properties

Expanded polystyrene should not be exposed to volatile hydrocarbons such as fuel oils, gasoline, and some alcohols. Anhydrous acids such as sulfuric, glacial, and formic acid may also attack expanded polystyrene. The product is also incompatible with aromatic or aliphatic hydrocarbons, esters, and amines.

Flammability Characteristics

Terrafoam EPS contains a fire-retardant additive to inhibit accidental ignition from a small fire source. However, it will burn when exposed to a large continuous flame or intense heat. Normal fire precautions and good housekeeping methods should be followed during storage and application. Exposed insulation should be covered with a finish acceptable to local building authorities and codes.

Health and the Environment

Terrafoam EPS contains no CFCs, HCFCs, or other refrigerant gases and contains only air, so it does not contribute to ozone depletion and does not lose R-value over time. It is non-toxic, hypo-allergenic, biologically inert, and will not support mold, mildew, or fungus growth. It does not irritate skin under normal handling conditions.

CODE EVALUATIONS APPROVALS

CCMC 12982-L.

TECHNICAL SUPPORT

For technical inquiries please contact:

- productsupport@bvrthermal.com
- (888) 453-5961 Toll Free

Website:

<https://bvrthermal.com/>

APPLICABLE STANDARDS

Terrafoam EPS Type 1, 2 and 3 is manufactured to meet or exceed applicable requirements of:

ASTM C177	Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
ASTM C578	Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
ASTM D1621	Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
ASTM D1623	Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
ASTM C272	Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions.
ASTM D2842	Standard Test Method for Water Absorption of Rigid Cellular Plastics.
ASTM E84	Standard Test Method for Surface Burning Characteristics of Building Materials.
ASTM E96	Standard Test Methods for Water Vapor Transmission of Materials.
CAN/ULC-S701	Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

MANUFACTURER

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