

TERRAFOAM[®] EPS

EXPANDED POLYSTYRENE INSULATION

PRODUCT DESCRIPTION

TERRAFOAM is an inert closed cell expanded polystyrene (E.P.S.) insulation material manufactured by Beaver Plastics Ltd. It has excellent resistance to freeze/thaw and has zero capillarity and low moisture absorption properties. TERRAFOAM will never rot, or support mold or mildew.

TERRAFOAM is suited to a wide range of applications because of its excellent physical and chemical properties, and economical cost. It is manufactured in a range of densities, in order to meet specific application requirements. Standard sheet sizes are 2'X8' (610mm x 2440mm) and 4'X8' (1220mm x 2440mm), but TERRAFOAM is also produced to custom sizes, with edges plain or shiplapped. TERRAFOAM contains ordinary air; not refrigerant gases. This means that insulating properties do not degrade over time.

APPLICATIONS

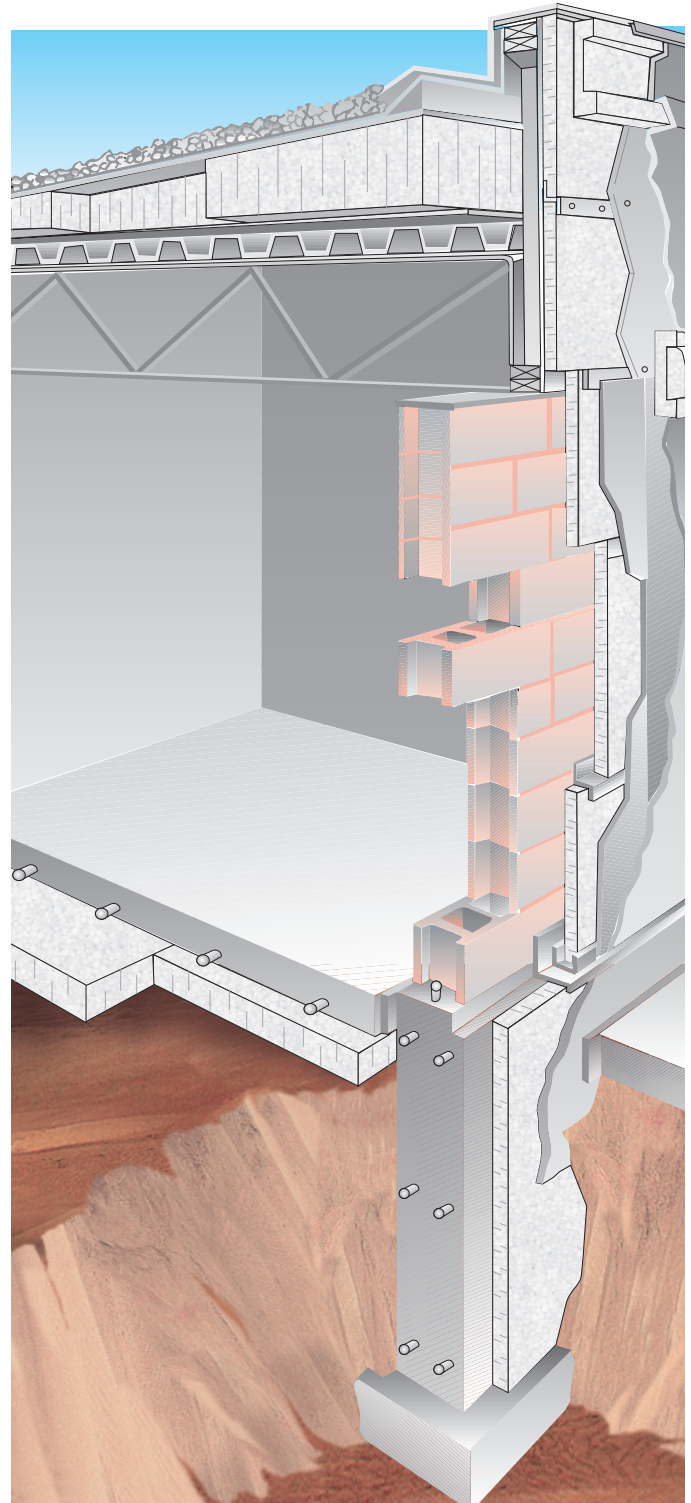
TERRAFOAM can be used on roofs, under both conventional built-up and single ply membranes. Panels can be produced in flat or tapered configurations that will provide slope-to-drain. TERRAFOAM is also used in walls, under slabs and as perimeter insulation for grade beams, foundation walls and buried in soil for shallow foundation designs. TERRAFOAM is available in 'ANR' grade, which is conditioned and sized expressly for exterior insulated finish systems. TERRAFOAM is resistant to soil weight and pressure, and can be specified for all below-grade applications. The following is a sampling of common applications.

- Above-grade cladding under stucco, siding
- Masonry Cavity Walls
- Exterior Insulated Finish Systems (E.I.F.S.)
- Conventional and Slope-to-Drain Roofing
- Floatation applications
- Under concrete slabs on grade
- Grade beams, foundation walls, shallow foundations
- Coolers, Freezers, and ice arenas
- Hot Tub Covers
- Packaging, protection, container linings

SPECIFICATIONS/COMPLIANCIES

TERRAFOAM is manufactured to CAN/ULC-S701-97 for Type 1, 2 and 3. Warnock Hersey has licensed Beaver Plastics under their Third Party Certification Program as a "Certified Manufacturer". This provides the purchaser/specifier with the highest degree of confidence that TERRAFOAM will meet or exceed specifications.

Beaver Plastics Ltd. was the first EPS manufacturer in North America to be certified under the International Standards Organization (ISO) 9002 Quality Assurance Program. This is a set of standards and criteria which is internationally recognized as an assurance of product quality and consistency.

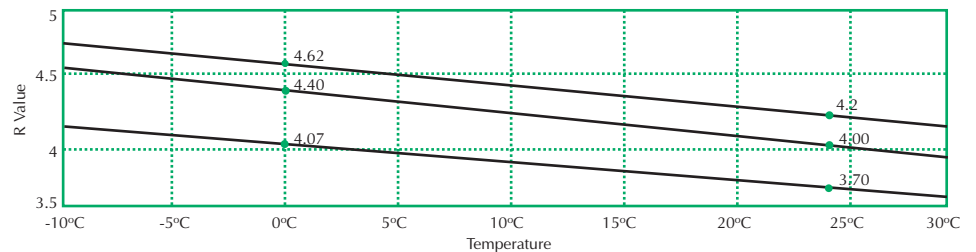


TERRAFOAM PHYSICAL PROPERTIES

PHYSICAL PROPERTY	UNITS IMPERIAL R VALUE	UNITS SI (METRICS)	ASTM TEST PROCEDURE	TERRAFOAM TYPE 1		TERRAFOAM TYPE 2		TERRAFOAM TYPE 3	
				Imperial	Metric	Imperial	Metric	Imperial	Metric
Minimum Thermal Resistance (R-Value)	hr. ft ² °F / BTU / 1 in.	m ² °C / W/25mm	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)	3.70	0.65	4.00	0.70	4.20	0.74
Compressive strength (min)	psi	k.Pa	D 1621-73	10	70	16	110	20.4	140
Capillary Action	---	---	---	none	none	none	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	6.0	6.0	4.0	4.0	2.0	2.0

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.

EFFECT OF TEMPERATURE ON R-VALUE OF TERRAFOAM



The R-Value of Terrafoam increases as temperature decreases. Thermal insulation effectiveness is therefore highest at low temperature extremes.

CHEMICAL PROPERTIES

Expanded polystyrene should not be exposed to volatile hydrocarbons, such as fuels oils, gasoline, and some alcohols. Anhydrous acids, such as sulfuric, glacial and formic acid may also attack expanded polystyrene.

HEALTH AND THE ENVIRONMENT

TERRAFOAM is one of the few foam plastic insulations available that contains absolutely no CFCs, HCFCs, or other refrigerant gases. It is non-toxic and hypo-allergenic, and will not irritate sensitive skin on exposure.

FLAMMABILITY CHARACTERISTICS

TERRAFOAM contains a chemical additive to inhibit accidental ignition from a small fire source. This additive, however, will not prevent burning when the material is exposed to a large continuous fire source or intense heat. Observe normal fire precautions and good housekeeping methods during application. Cover insulation with a finish acceptable to local building codes.

SIZES/SHIPPING WEIGHTS

Bundle Style	Bundle Dimensions	Weight per bundle		
		Type 1	Type 2	Type 3
Roofing	30" x 4' x 4' / 750mm x 1220mm x 1220mm	40 lbs/18 kgs	55 lbs/25 kgs	65 lbs/30 kgs
Half Size	30" x 2' x 8' / 750mm x 610mm x 2440mm	40 lbs/18 kgs	55 lbs/25 kgs	65 lbs/30 kgs
Standard	30" x 4' x 8' / 750mm x 1220mm x 2440mm	80 lbs/36 kgs	110 lbs/50 kgs	130 lbs/60 kgs

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