

HydroFoam™



The easy insulation for radiant heat

HydroFoam™ is the ideal radiant floor insulation product for residential, and commercial construction projects. The floor of a residential or commercial building is often the most ignored surface when it comes to insulation. The floor, when insulated with HydroFoam™, completes the building envelope and increases comfort and energy efficiency. HydroFoam™ maximizes radiant floor heating by ensuring the heat is dispersed evenly throughout the entire floor area, providing building occupants with a comfortable living and working environment.



NUDURA has brought innovation to the market with our line of Insulated Concrete Forms, that innovation continues with HydroFoam™. Installation is fast and easy compared to traditional foam insulation which requires multiple steps to run radiant heat piping. The 4' x 4' (1.2 m x 1.2 m) boards, available in two thickness, are easily installed with an overlapping interlock on all four sides, ensuring the boards are locked in

place during installation. HydroFoam™ utilizes a 360° multi-directional friction fit anchor system that eliminates the need for wire mesh. Radiant heat piping is easily stepped into place in any direction required.



HydroFoam™ offers installers a lightweight high density expanded polystyrene (EPS) product that increases installation speeds, is easily cut to meet any angle or radius while providing up to R-16 of insulation value.

Product Highlights

- Insulation under the concrete slab
- Residential, commercial, industrial and institutional construction
- Superior performance values
- 4' x 4' (1.2 m x 1.2 m) molded boards
- Available thicknesses:
2½" (64 mm) - R10 (RSI 1.76)
As a special order:
4" (100mm) - R16 (RSI 2.47)
- Multi-directional anchoring for ½" (13 mm) pipes
- Shiplap/interlocking on all 4 sides
- Fast and efficient installation
- Lightweight and easy to handle
- Increased comfort & energy savings
- Eco-friendly. No CFC's or HCFC's
- 100% recyclable
- Resistant to water and moisture
- Can contribute to points under LEED® NC programs

Technical Data

Testing in accordance with Specification Standards ASTM C 578-11 (USA) and CAN/ULC S 701-12a (CAN) for Type II (2) EPS Foam.

EPS Physical Properties Imperial (Metric) Values	ASTM Test Method	Spec. Std. Requirements	Results
Thermal resistance* F.ft ² .h/Btu (K.m ² /W)	C518	Min: 4.0 (0.70)	4.0 (0.70)
Water vapor permeance* Perm. (ng/Pa.s.m ²)	E96	Max: 3.5 (200)	1.13 (65)
Dimensional stability (%)	D2126	Max: 1.5	0.3
Flexural strength lb/in ² (kPa)	C203	Min: 35 (240)	53 (360)
Water absorption (%)	C272	Max: 4.0	0.26
Compressive properties lb/in ² (kPa)	D1621	Min: 16 (110)	23 (157)
Limiting oxygen index (%)	D2863	Min: 24	28

*NOTE: Property is expressed per 1 inch (25.4 mm) thickness of material.

Approximately 1500 li. ft. (457 m) of pipe can be placed in 45 minutes when using HydroFoam™

Each board covers 16 sq. ft. (1.49 m²) of surface



Watch our HydroFoam Installation Video.



HydroFoam™

360

Installation Instructions

Step 1 - Begin by leveling the ground within the structure to ensure all high spots and any large objects that could offset the level of the HydroFoam™ boards have been removed.

Step 2 - Start in the left corner of the room and place a full sheet of HydroFoam™ ensuring that the interlock can allow the next sheet to be placed on top of the ridge. This will make certain that the HydroFoam™ boards are being placed over top one another for ease of installation. It may be necessary to remove the edge to ensure the boards sit snug against the wall and may be necessary to secure the first row of boards to the ground to ensure the boards stay tight against the wall while the consecutive rows are being installed.

Step 3 - Once you have finished your first row, remove 2' (610 mm) from the first panel of the second row to allow the seams in the panels to be staggered between each row. Begin the second row along the same wall as the first row was started, placing the cut edge of the first board tight against the wall. Be sure to keep all cut sections, as they can be used later to fill in end pieces, and remove the correct edges so the panels lock together.

Step 4 - Once all of the HydroFoam™ boards have been placed, the radiant heat piping can be installed. Simply step the piping into the boards; the beveled edges allow the pipe to friction fit into the channels. The design of the HydroFoam™ boards allow you to run the pipe in any desired formation.

It may be necessary to use Hydronic Tubing Staples depending on how tight of turn is being made.

Step 5 - Once all of the pipe has been installed concrete can be placed. Be sure to follow all local building codes and guidelines when placing concrete.

Note: HydroFoam™ is extremely versatile, if you encounter a radius, or 45° bend simply cut the boards to match the angle, be sure to leave enough of a connection point to ensure that radius heat pipe can be run in the desired location.

In the event that you have any kind of obstruction, simply remove the desired amount of foam and place the HydroFoam™ board around or overtop of the obstruction and continue installation.

Warning: Flammable Product: Interior applications require a protective barrier. Any installations must comply with local applicable building codes and safety standard requirements. The information and suggestions contained in this document are provided solely for informational purposes and are offered in a spirit of collaboration. To our knowledge, we believe the information presented can be considered reliable. This document shall not constitute, in any case, a REPRESENTATION or a WARRANTY either EXPRESS or IMPLIED, either in terms of the information, data and suggestions included, or with respect to the absence or violation of any patent or other rights of third parties. Any proposed applications must be evaluated beforehand according to the application context and must, as a result, be adapted or modified to suit local conditions and materials if necessary.

