

THERMO-SNAP 360™

by Benchmark Foam



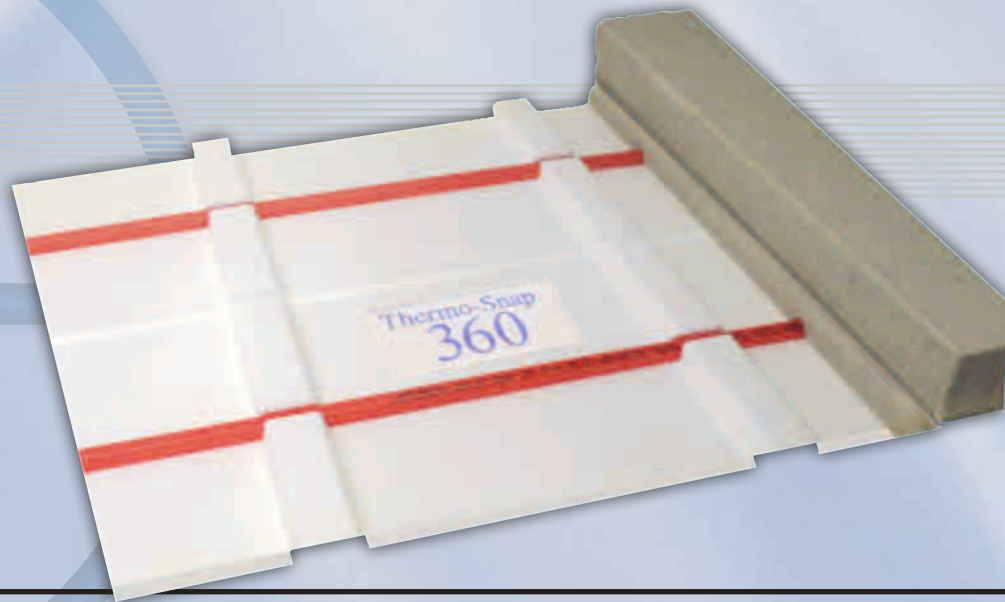
Made of 100% recycled expanded polystyrene (EPS), **Benchmark Foam's proprietary Thermo-Snap 360™** is the green alternative for in-floor heating systems with environmentally sound construction. When you choose Benchmark Foam, you receive superior products from a Midwest manufacturer with the only **On-Time Guarantee** in the industry, combining the best in quality, service and value for you and your customers.

A close-up photograph of a white expanded polystyrene (EPS) foam product. The product is a rectangular block with a blue label in the center that reads "Thermo-Snap 360" in a blue, serif font. The product is surrounded by orange plastic piping, which is part of an in-floor heating system. The background is a light blue, slightly blurred surface.

Thermo-Snap
360

 **BENCHMARK FOAM INC.**

Quick response is our guarantee.



THERMO-SNAP 360™ APPLICATIONS

RESIDENTIAL

- Popular to use in basements, garages and four season rooms, and can be used throughout any residential structure.
- Easily trimmed to accommodate drain pipes or ornate foundation layout.
- Can be incorporated into your design for under driveways or walkways as ice melt.
- Creates ideal heating for living spaces while allowing for maximum home design flexibility.



COMMERCIAL

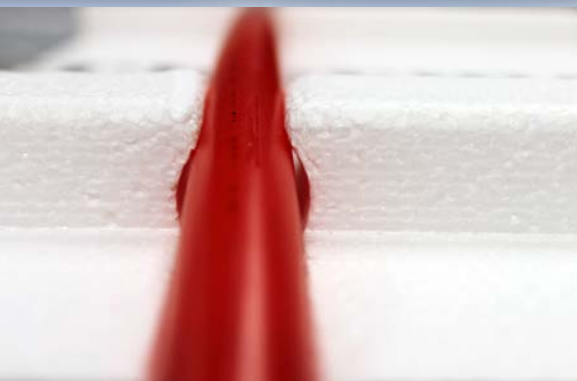
- Creates a more stable, even heat in outbuildings and work shops.
- Convenient size panels allow for quick layout before installing PEX tubing.
- Can qualify for green building programs, such as LEED.
- Made in the U.S., Thermo-Snap 360™ can help projects qualify for stimulus awards.
- Acts as a complimentary product for all ground source heat pump (GSHP) systems.



BENEFITS OF BENCHMARK FOAM

ON-TIME GUARANTEE

- Guarantees delivery by agreed-to date or 10 percent off.
- Gives customer confidence, even if order needs to be rushed.
- Only On-Time Guarantee in the industry.
- Assures customer needs with quick response customer service.
- Benchmark serves as a recycling center for unnecessary household packaging, jobsite waste and more
- See back page for full EPS properties of Thermo-Snap 360™



Call Benchmark Foam at 800-658-3444

or visit us online at www.BenchmarkFoam.com

THERMO-SNAP 360™ ADVANTAGES

Thermo-Snap 360™ panels reduce labor and material costs with a tube management system built into the recycled EPS (expanded polystyrene) insulating panel.

RECYCLED

- A smart alternative for environmentally conscious builders.
- Produced from clean, dry, post-consumer expanded polystyrene (EPS), Thermo-Snap 360™ is a 100% recycled product.
- Aids builders and homeowners to meet sustainability goals.
- Qualifies for green building programs, such as LEED® with its regenerated manufacturing process.
- Causes less environmental impact than other rigid insulation boards by not using harmful blowing agents like HCFCs (hydro chlorofluorocarbons)

COST EFFECTIVE

- Predetermined tube placement ensures even spacing and heating.
- Minimal staple usage means saving on materials.
- Save time measuring by using 6" or 12" centers to guide rebar placement.

VERSATILE

- Panels are easily trimmed to accommodate custom shapes.
- 4'x4' panel accommodates 1/2" or 5/8" tube pathways on 6" centers.
- Can be customized to specific panel thicknesses.

ENERGY EFFICIENT

- Acts as a stable thermal barrier to reduce heat loss.
- Maintains stable R-Value of 8.1 or above, and R10 for the 2 1/2" option.
- Optimal radiant heat effectiveness is achieved with PEX at the bottom of the concrete slab.



PHYSICAL PROPERTIES OF THERMO-SNAP 360™

| Property | Units | ASTM Test | Values Meet or Exceed ASTM C578 | |
|--|---------------------|----------------------------------|---------------------------------|-----------------------------|
| | | | Thermo-Snap 360™ (2") | Thermo-Snap 360™ (2.5") |
| Density, min. | lbs/ft ³ | C303 or D1622 | will meet or exceed 1.15 | will meet or exceed 1.15 |
| Thermal Resistance "R Value" | Two inches thick | C177 or @ 40° F C518 @ 75° F* | 8.5 8 | 10.6 10 |
| Strength Properties, minimum | | | | |
| Compressive (@ 10% deformation) | psi | D1621 | 15.0 | 15.0 |
| Flexural | psi | C203 | 30.0 | 30.0 |
| Moisture Resistance | | | | |
| Water Absorption (by total immersion, max.) | vol % | C272 | <3.0 | <3.0 |
| Water Vapor (Permeance, max.) | Perms | E96 | 2.5 | 2.5 |
| Oxygen index, min. | vol % | D696 | 24.0 | 24.0 |
| Flame Spread @ 6" | | UL® (BRYX) | 20 | 20 |
| Smoke Development | | UL® (BRYX) | 300 | 300 |

All values are based on data available from Epsilyte, Styropek and BASF Corporation.

*Federal Trade Commission ruling: Use the 75° R-Value when calculating R-Values for residential construction (fact sheet available upon request).

DESIGN CONSIDERATIONS

Flammability: Like many construction materials, expanded polystyrene (EPS) is combustible. It should not be exposed to flame or other ignition sources. Current building code requirements should be met for adequate protection or separation from occupied areas.

Water Absorption Properties: EPS water absorption is low. Moisture takes the path of least resistance and travels around individual beads rather than through them; the non-interconnecting cell structure prevents capillary absorption.

Water Vapor Transmission: EPS has low permeability, but is not considered a vapor barrier.

Solvent Exposure: EPS is subject to attack by petroleum-based solvents and adhesives, and coal-tar pitch products. Care should be taken to prevent EPS direct contact with these products and their vapors. Use only adhesives approved for EPS applications.

ON-TIME GUARANTEE

Benchmark Foam knows your business depends on our product arriving on time. Our service response is so dependable we back it with our On-Time Guarantee. Your product will be shipped and arrive on the agreed-to arrival date or we will discount your invoice 10 percent. We work to accommodate customer needs, giving you confidence when you place an order, even if it needs to be rushed. And we do not have truckload quotas, so no matter how large or small, your order will ship on time.



Quick response is our guarantee.

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