



REDI-FOAM™

UNDER-SLAB INSULATION
DIVISION
0700

1 PRODUCT NAME

PRODUCT NAME: Redi-Foam®
Radiant Floor Panels

2 MANUFACTURER

ISI BUILDING PRODUCTS

Insulation Solutions, Inc.
401 Truck Haven Road, East Peoria Illinois 61611
Phone: 866.698.6562 / Fax: 309.698.0065 / www.isibp.com

3 PRODUCT DESCRIPTION

3.1 BASIC USE

Redi-Foam panel for radiant heating has been specifically designed to provide the most cost effective installation and performance characteristics for hydronic radiant floor heating systems.

3.2 COMPOSITION & MATERIALS

Redi-Foam consists of expanded polystyrene (EPS) insulation, manufactured with technologically advanced automated EPS molding equipment and molded into a high impact polystyrene film.

The polystyrene film provides friction and flexural strength, preventing slippage and ensuring less damage to the panel.

This film acts as a vapor barrier on the panel.

Each Redi-Foam panel is designed with "mushroom shape" panel nubs to lock PEX tubing easily and firmly in place.

Each Redi-Foam panel is equipped with interlocking system for simple, secure fastening.

3.3 SIZE

Standard Size: 2' x 4'
Standard Offering: R-10

Residential Offerings: R-10, R-12, R-14, R-16
Commercial Offerings: R-11, R-13, R-14, R-16

3.4 WEIGHT

R-10: 3 lbs. per sheet

4 TECHNICAL DATA

4.1 APPLICABLE STANDARDS

ASTM D 1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics

ASTM C 518-10 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

ASTM D 1621-10 Standard Test Method for Compressive Properties of Rigid Cellular Plastics

ASTM C 203-05a Standard Test Methods for Braking Load and Flexural Properties of Block-type Thermal Insulation

ASTM E 96E/96M Standard Test Methods for Water Vapor Transmission of Materials.

5 INSTALLATION

PREPARATION

5.1 Determine the number of Redi-Foam Panels. Each panel measures 29 $\frac{1}{4}$ " x 49 $\frac{1}{4}$ " with a usable 2' x 4' (8 sq. ft.) area per panel. Measure total square foot of installation area and divide by 8 to calculate the number of panels.

Redi-Foam accommodates 3/8", 1/2", 5/8", 3/4" and 1" PEX tubing.

Designed to accommodate a 3" on-center pattern, the design layout will need to use the same 3" on-center and multiples.

5.2 Ensure sub-base is smooth, compacted and at proper grade.

5.3 Check your local building codes to see if a vapor barrier is required. If so, install barrier prior to beginning your project.

PLACEMENT

5.4 Start in the far left corner, working from left to right, lay panel so the exposed interlock is to the right and forward.

NOTE: The panels may be laid lengthwise or widthwise along the outer wall. Continue to lay panels, ensuring they interlock, snug and aligned. At the end of the row, you may need to cut the final panel to fit properly.

5.5 Install the next row with a staggered pattern (having neither rows nor columns of panels) to keep installation tightly bound and more durable with less waste. Starting in the left corner, use excess piece cut from the last panel on the first row or cut a new panel in half. Place the second row panel ensuring interlocks are snug and panels are properly aligned.

5.6 Continue to place the rows of panels, maintaining a staggered running bond layout.

NOTE: It may be necessary to cut the panels to accommodate columns or walls. It may be necessary to glue the panels. Use construction adhesive compatible with foam insulation.

5.7 Install the PEX tubing by walking it into the nubs of the panels according to your design layout; Redi-Foam insulated radiant PEX panels are specifically designed to properly seat the tubing and ensure the concrete is properly encased.

6 AVAILABILITY AND COST

Redi-Foam is sold through construction and HVAC supply houses across the United States and Canada.

Redi-Foam current cost information can be obtained by calling our corporate sales office at 866.698.6562.

7 WARRANTY

Additional warranty information can be obtained by calling 866.698.6562 or online at www.isibp.com.

8 MAINTENANCE

Redi-Foam requires no maintenance once installed.

9 TECHNICAL SERVICES

Technical information and detailed test results can be obtained by calling ISI Building Products toll free at 866.698.6562.

10 FILING SYSTEMS

Additional information can be obtained by calling our corporate office at 866.698.6562 or online at www.isibp.com.

STANDARD	DESCRIPTION	R-10 RESIDENTIAL	R-11 COMMERCIAL	R-12 RESIDENTIAL	R-13 COMMERCIAL	R-14 RESIDENTIAL	R-14 COMMERCIAL	R-16 RESIDENTIAL	R-16 COMMERCIAL
ASTM D 1622	R-VALUE	10°F ft ² .h/BTU	11°F ft ² .h/BTU	12°F ft ² .h/BTU	13°F ft ² .h/BTU	14°F ft ² .h/BTU	14°F ft ² .h/BTU	16°F ft ² .h/BTU	16°F ft ² .h/BTU
ASTM C 518-10	DENSITY	1.51 lbs./ft ³	2.2 lbs./ft ³	1.51 lbs./ft ³	2.2 lbs./ft ³	1.51 lbs./ft ³	2.2 lbs./ft ³	1.51 lbs./ft ³	2.2 lbs./ft ³
ASTM 518-10	RSI	1.76	1.94	2.11	2.29	2.46	2.64	2.84	2.84
ASTM D 1621-10	COMPRESSION STRENGTH	28.0 psi	45.5 psi	28.0 psi	45.5 psi	28.0 psi	45.5 psi	28.0 psi	45.5 psi
ASTM C 203-05a	FLEXURAL STRENGTH	51.9 psi	68.6 psi	51.9 psi	68.6 psi	51.9 psi	68.6 psi	51.9 psi	68.6 psi
ASTM E 96E/96M	WATER VAPOR BARRIER	23.8 (ng/Pas.m ²) 0.42 Perms	17.5 (ng/Pas.m ²) 0.42 Perms	23.8 (ng/Pas.m ²) 0.42 Perms	17.5 (ng/Pas.m ²) 0.42 Perms	23.8 (ng/Pas.m ²) 0.42 Perms	17.5 (ng/Pas.m ²) 0.42 Perms	23.8 (ng/Pas.m ²) 0.42 Perms	17.5 (ng/Pas.m ²) 0.42 Perms
PRODUCT DESCRIPTION									
OVERALL THICKNESS	INCHES	3 3/8"	3 3/8"	3 7/8"	3 7/8"	4 3/8"	4 3/8"	4 7/8"	4 7/8"
NOMINAL THICKNESS	INCHES	2.0"	2.0"	2.5"	2.5"	3.0"	3.0"	3.5"	3.5"
TYPE DENSITY	EPS LBS/CUBIC FOOT	TYPE II 1.5 lbs./ft ³	TYPE IX 2.0 lbs./ft ³	TYPE II 1.5 lbs./ft ³	TYPE IX 2.0 lbs./ft ³	TYPE II 1.5 lbs./ft ³	TYPE IX 2.0 lbs./ft ³	TYPE II 1.5 lbs./ft ³	TYPE IX 2.0 lbs./ft ³

R-VALUE: R MEANS RESISTANCE TO HEAT FLOW. THE HIGHER THE R-VALUE, THE GREATER THE INSULATING POWER. COMPARE INSULATION R-VALUES BEFORE PURCHASE. FACTORS TO CONSIDER: AMOUNT OF INSULATION NEEDED DEPENDS ON CLIMATE, FUEL SAVINGS FROM INSULATION DEPENDS ON CLIMATE, TYPE/SIZE OF HOME, AMOUNT OF EXISTING INSULATION IN HOME, FUEL USE PATTERNS AND FAMILY SIZE. TO GET THE MARKED R-VALUE, IT IS ESSENTIAL THIS INSULATION BE INSTALLED PROPERLY.

NOTE:

TO THE BEST OF OUR KNOWLEDGE, THE SPECIFICATION CHART ON PAGE ONE LISTS TYPICAL PROPERTY VALUES AND ARE INTENDED AS GUIDES ONLY, NOT AS SPECIFICATION LIMITS. ISI BUILDING PRODUCTS MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, NO GUARANTEE OF SATISFACTORY RESULTS FROM RELIANCE UPON CONTAINED INFORMATION OR RECOMMENDATIONS AND DISCLAIMS ALL LIABILITY FOR RESULTING LOSS OR DAMAGE.

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