



ThermaSound®

The Next Generation of InsulationSM

ThermaSound® CMU Block Insulation Inserts

ThermaSound® Block Insulation Inserts are custom fabricated from expanded polystyrene in a density range of 0.95 – 1.2 pounds per cubic foot. 288 CMU inserts are packaged in each polyethylene bag.

Manufacturing Process:

Computer controlled hot wires cut the inserts from cured and stabilized polystyrene billets, produced at the molding facility to ensure consistency. Due to the flexibility of our manufacturing process, we can accommodate most core sizes.

Basic Use:

ThermaSound® Block Insulation Inserts are designed to be installed in the cores of CMUs at the block plant. This provides consistent pre-insulated units to be delivered to the construction site. It is recommended that the inserts be installed next to the face shell to provide the best performance. The inserts are designed to fit a wide variety of cores.

Installation:

Simply push the insert into the core. The tapered bottom and accordion design takes care of the rest for a snug fit.

Precautions:

All ThermaSound® Block Insulation Inserts are produced with modified materials which alter its burning characteristics. When the source of ignition is removed, the material will stop burning sooner than unmodified material. However, all Expanded Polystyrene must be considered combustible and should not be exposed to open flames. Good fire safety procedures should be followed during storage and installation.

Warranty:

ThermaSound® Block Insulation Inserts are guaranteed to conform to the codes and values described within.

Results:

- A significant increase in R-value.
- R-value remains consistent for the life of the wall.
- Very cost competitive with other insulating methods.
- Provides clearance for utilities.
- Can be handled by masons with little to no difficulty.
- Not effected by moisture, yet will pass water vapor.
- Improves sound transmission characteristics relative to uninsulated CMUs.
- Does not affect the fire rating of a conventional block wall.

Environmental Considerations:

- Chemically inert
- No CFCs
- No disposal issue, as a block arrives at job site pre-insulated
- Expanded Polystyrene is 100% recyclable

Limitations: As with all products produced from expandable polystyrene, ThermaSound® Block Insulation Inserts should not be exposed to temperatures in excess of 180°F for extended periods of time.

Technical Data:

Applicable Standards: ThermaSound® Block Insulation Inserts conform to the following:

- A) ASTM-C578-95
- B) Flammability requirements of ICBO (section 1712) BOCA (section 2002) and SBCCI (section 717) Codes ULASTM E 84 (UL 723) ref: UL, Inc. file no. R-7503, Guide BRYX – Foam Plastics NER Report 384
- C) ASTM C90-90 Specifications for hollow load bearing masonry units.
- D) Mil Spec.
 - A) Mil-P-40619A
 - B) Mil-P-19644C





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Technical Data

Physical Properties				
Property	Units	ASTM	Density (lbs./cubic foot)	
Properties Meeting ASTM C 578-95			1.0	1.25
Thermal Resistance @ 75°F @ 40°F	R for 1 inch	C 177 or C 518	3.92 4.17	4.10 4.25
Dimensional Stability	Max. %	D 2126	2.0	2.0
Oxygen Index	Min. %	D 2863	24.0	24.0
Water Vapor	Perm inch	C 355	0.8-2.8	0.8-2.6
Water Absorption	% by volume Max.	C 272	0.9-1.9	0.8-1.8
Coefficient of Thermal Expansion	In./Linear ft.	D 696	0.000035	0.000035
Flash Ignition Temp.	°F	D 1929	675°F	675°F
Toxicity		Lab Reports	Approximately the same as wood, paper or cardboard.	
Flame Spread Rating			< 25	< 25

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R-Value Data

Block Insulated with ThermaSound® Block Insulation					
Block Density (lbs./cubic foot)	U Value R Value	Block Size			
		6"	8"	10"	12"
80	U	0.16	0.13	0.12	0.11
	R	6.45	7.75	8.55	9.40
90	U	0.18	0.14	0.13	0.12
	R	5.70	7.15	7.45	8.60
100	U	0.20	0.16	0.14	0.13
	R	5.00	6.10	7.31	7.60
110	U	0.23	0.18	0.16	0.14
	R	4.40	5.50	6.10	6.90
120	U	0.25	0.21	0.19	0.16
	R	4.00	4.85	5.40	6.10
130	U	0.29	0.24	0.21	0.19
	R	3.50	4.20	4.80	5.30

Uninsulated Block					
Block Density (lbs./cubic foot)	U Value R Value	Block Size			
		6"	8"	10"	12"
80	U	0.34	0.32	0.29	0.27
	R	2.90	3.10	3.40	3.70
90	U	0.38	0.34	0.30	0.29
	R	2.63	2.94	3.33	3.45
100	U	0.40	0.34	0.32	0.31
	R	2.50	2.90	3.13	3.20
110	U	0.43	0.37	0.34	0.32
	R	2.33	2.70	2.94	3.13
120	U	0.43	0.38	0.36	0.33
	R	2.30	2.60	2.80	3.00
130	U	0.49	0.45	0.42	0.39
	R	2.04	2.22	2.38	2.56

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ThermaSound® Product Line



ThermaSound® CMU Block Insert

- R*- Value: ~4.17 per inch @ 40°F
- ThermaSound® Block Inserts may increase the R-Value of a concrete block by as much as 100%!
- Insert compresses to fill the void space within the block
- Various sizes available



ThermaSound® Wall Insert

- Insert compresses to fit in-between wall studs even if the studs or joists are not exactly 16" on center
- R*- Value: ~4.20 per inch @ 25°F
- Insert size is 15"x 8'x 3 1/2" thick
- Various lengths available
- Great for basements and attics!



ThermaSound® Pipe Insulation

- R*- Value: ~4.80 per inch @ 25°F
- Insulates pipe up to 2" OD
- Various lengths and diameters available
- Proprietary durable coating applied at an additional charge



ThermaSound® Insulation Board

- R*- Value: ~4.35 per inch @ 25°F
- Board Density: ~0.90 pcf
- Board size: 4'x 8'
- Thicknesses available: 5/16", 9/16", 2"
- Custom sizes available with additional charges

*"R" means resistance to heat flow. The higher the "R" value, the higher the insulating power. The above information is from sources considered reliable. No warranty is expressed or implied and suitability for use in a particular application is the sole responsibility of the user.