



THERMOMASS®

BUILDING INSULATION SYSTEMS

By Composite Technologies Corporation



POURED IN PLACE INSULATED CONCRETE

www.thermomass.com

Homeowners today are more educated than ever about the energy and moisture issues that affect a home's long-term comfort and value.

Builders, too, are finding that it's smart business to incorporate building science principles into their projects. And the THERMOMASS® Poured-in-Place (PIP) Insulation System is a great place to start. Above and below grade walls can either be a perpetual source of energy loss and moisture problems or provide a solid foundation for a more energy efficient and comfortable home. With the THERMOMASS® PIP Insulation System, you can give your customers a better wall – one built on solid science.

A Look Inside

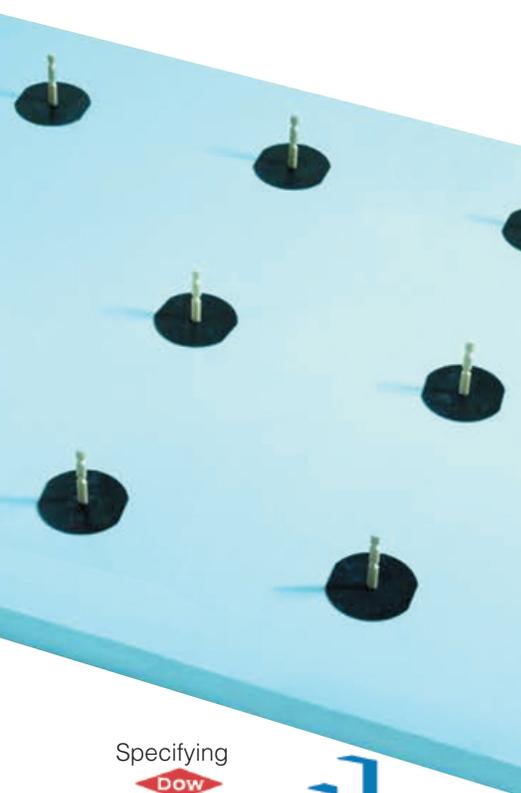
Look inside a wall insulated with the THERMOMASS® Poured-In-Place (PIP) Insulation System and you'll see a core of energy efficient Dow brand STYROFOAM polystyrene insulation sandwiched between two layers of concrete – all joined together by our patented high strength fiber composite connectors, resulting in a wall system that provides unparalleled energy efficiency and uncompromised moisture resistance.

The rigid foam insulation used with the THERMOMASS® PIP Insulation System is specially engineered with pre-installed snap lock assemblies to accommodate the fiber composite connector rods, which are inserted at the building site. The non-conductive, chemically resistant material, allows for an uninterrupted envelope of insulation throughout the walls of the structure. This creates a highly energy efficient wall insulation system.

Walls built with the THERMOMASS® PIP Insulation System comprise a mass wall system with an overall R-value that is substantially enhanced. This is largely due to the high mass of concrete, which can store significant amounts of thermal energy and delay heat transfer.

For over 25 years, the THERMOMASS® PIP Insulation System has been the industry leader in the residential and commercial markets for sandwich wall construction. Extensive testing, research and development of innovative technologies help keep THERMOMASS® at the forefront of changing the way the world builds.

RESIDENTIAL COMMERCIAL ABOVE & BELOW GRADE



Specifying

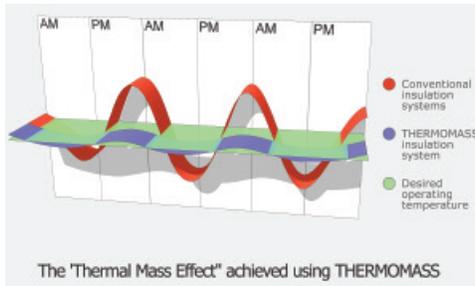


*trademark of the Dow Chemical Company

SOLID BENEFITS FOR BUILDERS...

The THERMOMASS® PIP Insulation System can help you complete the job efficiently and effectively, as well as promote your reputation as a quality builder.

THE THERMAL MASS EFFECT



The ability of concrete to store energy and dampen the effect of temperature change on heating and cooling systems is known as the "Thermal Mass Effect." Due to the mass effect created by the THERMOMASS® Building Insulation System the performance R-value of the system can be two to three times greater than that of

the material R-value, resulting in energy cost savings up to or exceeding 50%. One way that the THERMOMASS® insulation system helps the owner save money is in heating and cooling costs. Because the THERMOMASS® insulated walls have an excellent thermal storage capacity, buildings using them have a reduced total load requirement and can take advantage of off peak energy pricing, allowing them to reduce the cost of energy by as much as 50% or more. By increasing the thickness of the insulation, R-values can be increased from R-11 to R-40. Consult THERMOMASS® for your insulation requirements. The chart below reflects the performance of a 2" Styrofoam brand insulation in different geographic locations.

THERMAL MASS EFFECT OF 4/2/4 WALL

INSULATION		PANEL	EFFECTIVE R-VALUE*						
TYPE	R-VALUE	R-VALUE	ATLANTA	DENVER	MIAMI	NEW YORK	MINNEAPOLIS	PHOENIX	WASHINGTON D.C.
THERMOMASS PIP	5 PER in.	11.33	24.9	22.4	22.1	19.27	17.0	32.9	20.4

*Values are a result of tests conducted on the THERMOMASS® PIP Insulation System by Oak Ridge National Laboratory, United States Department of Energy

LEED-ING THE WAY IN GREEN BUILDING

The THERMOMASS® Building Insulation System can make a significant contribution toward the construction of a Green Building. Through its highly energy efficient properties, THERMOMASS® aids architects, engineers and builders in achieving points toward LEED™ certification. LEED™ is a point system used to quantify the use of "green" building materials, designs and products. This rating system contains several sections and subsections in which points are allocated toward LEED™ certification of a building. Architects, engineers and builders using the THERMOMASS® system can earn up to 21 points in five of the six sections of LEED™.



THE HEALTHY CHOICE

Health experts know that mold and mildew are a serious problem in buildings and have been identified as health hazards. These organisms thrive in moist areas. The inefficiency of other insulation systems results in moisture that leads to mold and mildew. The THERMOMASS® System keeps the outside weather outside. This translates into minimal temperature change inside so there is little moisture condensation. No moisture means no mold or mildew which means no problems!



Putting It All Together

With the THERMOMASS® PIP Insulation System, installing an integrally insulated poured-in-place basement is a fast and easy process. Any type of standard forms can be used, enabling the contractor to maximize his one-time capital investment. Plus, builders can employ standard building practices, helping to ensure consistent quality in the final product.



Conventional forms are set. THERMOMASS® PIP Insulation is installed. They are closed and then braced.



Fiber-composite connector rods are inserted through pre-installed spool assemblies in the rigid foam insulation. The insulation panels are put into position in the forms.



Connectors with 120,000 psi tensile strength hold the insulation in the proper position for pouring and structurally tie the two layers of concrete together.



Concrete is poured into the form. The concrete consolidates around the connector rods and insulation, creating a sandwich wall. After the concrete has cured, the forms are removed.

***Celebrating over 25 years of changing
the way the world builds***

Build A Better Basement

A better basement – one without many of the energy and moisture issues that trouble builders and homeowners today – forms the foundation of a better home. Using proven construction methods, superior building science and quality building materials, the THERMOMASS® PIP Insulation System gives builders the technology they need to build better basements – easily and cost effectively.

Choose the THERMOMASS® PIP Insulation System for the next basement you install, and see how building with superior science can help create satisfied customers – and improve your profits.

Visit www.thermomass.com to learn more about the THERMOMASS® PIP Insulation System. Or, call 1-866-272-2223.

THERMOMASS® Technology.
Solid Thinking

www.thermomass.com

POURED IN PLACE INSULATED CONCRETE

SOLID PERFORMANCE FOR HOMEOWNERS...

Satisfied, repeat customers are key to your long-term business success – and poured-in-place basements built with THERMOMASS® PIP Insulation System can help. Here are some of the benefits your customers can expect:

DRYWALL ANCHORING SYSTEM



The THERMOMASS® Drywall Anchoring System is

available for easy installation of drywall on a completed THERMOMASS® Poured-In-Place interior wall. Electrical conduits and boxes can be easily installed by the contractor before the concrete is poured.

THE PREFERRED CHOICE

THERMOMASS® is the overwhelming choice of knowledgeable builders and contractors nationwide. By sandwiching the insulation between the two layers of concrete, the building's walls are built and insulated in one operation, greatly reducing construction time and getting the project finished on time.

TECHNICAL DESIGN ASSISTANCE



- Determination of system compatibility with your project
- Recommendation of design modifications to assure the integrity of the project
- CAD generated layouts that simplify and speed up the construction process
- CAD generated design and construction details

CONSTRUCTION ASSISTANCE

- Pre-construction meetings
- On-site installation training and assistance
- Ongoing project assistance

ANALYSIS SOFTWARE APPLICATION TOOLS

With our state-of-the-art analysis application software we can

analyze moisture and heat migration on panel wall systems. By using this software application, we can accurately predict reactions to weather from both external and internal climate conditions. Our analysis applications include:

- Mass Performance Analysis
- Energy Efficiency Analysis
- Construction Cost Estimates
- Dewpoint and Moisture Analysis

A SOUND INVESTMENT

Concrete is low in cost and one of the most durable and flexible construction materials



available. It's a common misnomer that block/brick and stick built construction methods are less expensive than using insulated concrete. To get a high performance concrete insulation system, there is not a more economical way than sandwich wall construction and the THERMOMASS® PIP Insulation System.

ELIMINATES THREAT OF TERMITES AND OTHER PESTS THAT CAN ATTACK OTHER WALL INSULATION SYSTEMS

Walls built with the THERMOMASS® PIP Insulation System are solid from surface to surface. With rigid foam insulation sandwiched between two layers of concrete, there is no warm cavity



or edible material to support termites and other

unwanted pests. In other systems, termites and pests thrive in insulation that is not protected like it is in the THERMOMASS® System.

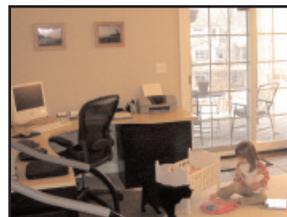
PROVEN UNDER FIRE



THERMOMASS® PIP insulated walls provide incredible structural integrity and security plus an added measure of fire safety. Our walls have been tested by a nationally recognized fire testing laboratory, blasted by temperatures up to 2000° F for four hours while maintaining their structural integrity.



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Warm & Secure

Quiet Comfort

Dry & Healthy

The world's most energy efficient insulation system
Celebrating over 25 years of changing the way the world builds



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