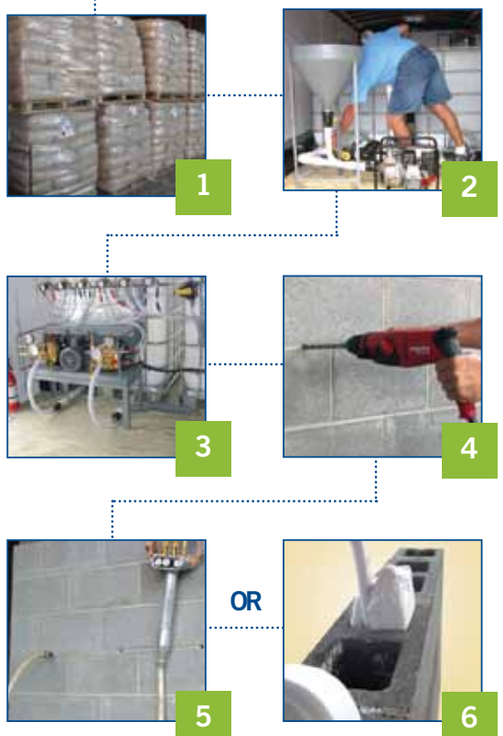
WHAT IS R501 FOAM FOR CMU'S?

The product is produced from a two-part system of kiln-dried resins and foaming agent. The resins **(1)** are blended in water **(2)**. The foaming agent and resins are delivered to the foam gun via a pump system **(3)** that delivers the elements in a precise ratio to the foam gun where the foam is produced. Factory-trained installers drill holes at regular intervals **(4)** in the cells of block structures. These holes are patched after application. Beginning about four feet from the ground, foam is injected through the holes **(5)**, totally filling all the cavities as high as ten feet. An alternate application is top filling **(6)** that is used for shorter walls or foundations. Picture #6 also shows the consistency of the foam upon application.

THE R-501 PROCESS



ARCHITECTURAL INFORMATION.

Specifications for Polymaster R-501 are downloadable and are available in a variety of formats for your convenience at polymaster.com.

Please do not use Polymaster R-501 to achieve a 4-hour firewall. Independent testing in an empty block wall indicates that there is little benefit provided by aminoplast foams to a fire rating. Some manufacturers have gone to great strides to make it appear that the addition of foam will increase the rating of a block wall from 2 hours to four hours. Please be sure that the tests cited were conducted on conventionally built walls with two-hour rated, conventional blocks that are empty of all grout or other material at the time of foam installation. Always ask for a diagram of the wall design and grout schedule when 4-hour firewall claims are made.

In that pre-mixed resins have a very short shelf life (seven days), please be sure that you specify that the foam be made of dry resin. Old components will yield an inferior, shrinking product.

R-501 will provide an R-Value of 11.05 in an empty wall constructed of 100 lb. density blocks, tested to ASTM C-236.

Polymaster resins proudly carry these seals of approval for environmental and quality controls.

Recognized by: ICC, SBCCI, BOCA, UBC

Responsible Care® Good Chemistry at Work

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Insulating Foams

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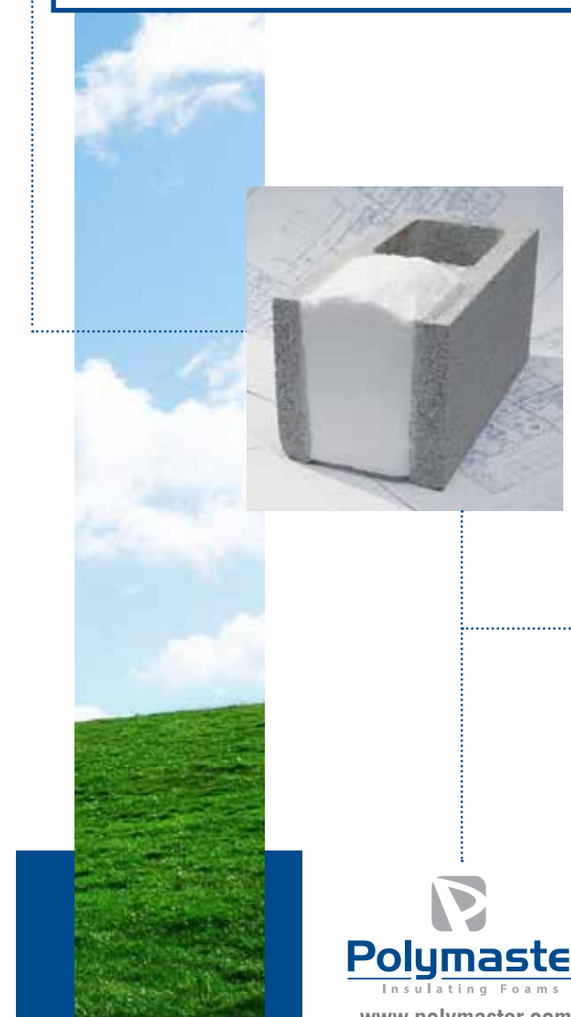

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BENEFITS OF R501 OVER OTHER TYPES OF CMU INSULATION.

POLYMASTER FOAM PERFECTED "DRY FOAM" TECHNOLOGY.

R501 is specially engineered for newly constructed concrete block walls. Only Polymaster has the experience and staff to stand behind its dealers and their customers to ensure consistently reliable and superior insulation products.

Not all aminoplast foams are the same. There are distinct and important differences that should be noted by architects, engineers, and general contractors. These are detailed below:

- R-501 is "dry powder foam." R-501's resins are kiln-dried and are delivered to our field partners as a dry powder. Our factory trained installers then are able to produce the foam from fresh components at the time of installation. Pre-mixed resins are unstable, have a short shelf life, and can yield an inferior product when installed.

- R-501 comes in recyclable containers and is installed by trained installers worldwide and is non-toxic, odor-free, CFC-free, and has no ozone depleting off-gassing making installation safe and proficient without disrupting other site work.

- R-501 for commercial applications is a cost-effective, environmentally green thermal and acoustical foam for filling the cores of concrete block (cmu) and wall cavities. R-501 yields higher R-values than industry standards.

R-501's R-Values are higher, yielding lower energy costs for building owners. R-501 Foam yields an R-4.63 per inch or an R-11 in a conventional 8" block wall.

R-501 moves thru the blocks webbing to fill all voids.

R501 FOAM VS. LOOSE FILL

Loose fill is hard to handle and blows away easily in the breeze.

Loose fill drains out of the wall if puncture occurs, with no way to reinstall it.

R-501 totally fills the wall cavity and stays there.

Dry fill refers to any type of insulating material that is poured in to the cells of the CMU's from the top as the wall is erected. Materials most commonly used are vermiculite and polystyrene balls. These products yield similar R-Values to R-501 but possess distinct disadvantages.

First, is inefficiency. Every four courses or so, masons must stop laying block, manhandle sacks of material up the wall, then try to pour the material through the open cells. Often wind will blow away the insulation as it is poured causing waste and frustration. Secondly, should any puncture of the block occur by accident or by necessity, the dry fill insulation will drain out through the hole, with no way to replace it. Thirdly, dry fill does not insulate the spaces between the blocks known as the webbing.

R-501 is installed after the masons have finished their job. As the foam is injected, it flows from cell to cell, through the webbing of the blocks, providing a total fill of the wall. Once the foam is in place, it stays there for the life of the building with no fear of loss due to an accidental or intentional hole in the wall.

R501 FOAM VS.WALL BOARD

Wall Board, also referred to as rigid board insulation is commonly seen hanging on the exterior of block buildings under construction. This insulation is usually made of polystyrene and is available in thicknesses of one to two inches. Its purpose is to insulate the block wall in the wythe cavity – the space between the blocks and the brick fascia.

R-501 is a less expensive alternative to rigid board, yielding a higher R-Value in the final analysis. Wythe cavities are usually 2" wide. Since many architects wish to leave this cavity open, only 1" of rigid board can be used. One inch of rigid board has an R-Value of 5. An R-501 filled wall, on the other hand, yields an R-11.05 in a conventional 8" block wall.

R-501 is not a damp-proofer, nor is rigid board. The fact is, the only reliable way to control moisture in a block wall is to apply a damp-proof material to the wall before rigid board or any other type of insulation is used (with the exception of 2 lb. or higher density spray InsulThane foam).

INSULTHANE SPRAY FOAM PROGRAM

InsulThane polyurethane spray foams are available in a variety of densities. InsulBloc, a two-pound spray foam for the face of cmu is a self adhesion insulation product that also acts the damp-proofing membrane in wythe cavity applications. It yields an R-6.8 per inch and provides a seamless coating to walls and joints. Polymaster is the only foam company that offers both aminoplast foams and polyurethane spray foams. When used in conjunction, R-501 and InsulThane foams can increase thermal resistance by 120%!

OSHA Compliant 1910.1048(c) (1), 1910.1048(c) (2)

POLYMASTER IS THE R-VALUE LEADER

*8 INCH BLOCK R-VALUES 11.1

R501	OTHER FOAMS	NO INSUL.	BLOCK DENSITY
11.1	9.0	2.2	100
10.1	5.0	1.9	140

*8" GROUTED cmu @ 48"oc yields 5.74 overall R-value in C1363 test

12 INCH BLOCK R-VALUES 20.1

R501	OTHER FOAMS	NO INSUL.	BLOCK DENSITY
20.1	9.8	2.2	120
19.1	7.0	2.0	140

*Tested Value using ASTM Method C-1363.. The 8" 100 density block value is a NON-GROUTED wall value. NON-Insulated block values are listed in NCMA Tek 6-2b. Remaining values extrapolated by an ASTM accredited testing laboratory based on ASTM C1363 for 8" cmu. *Extrapolated value of 20.03 based on 8-inch block test."