

COMPONENTS

ENDURA INSULATED MASONRY WALL SYSTEM

The ENDURA Insulated Masonry Wall System consists of four proprietary and two generic elements or components.

The generic elements are rebar [deformed steel rod or bar of various thicknesses or diameters] and grout [a mixture of Portland Cement, sand, gravel and water] used for creating greater structural strength within the wall,

The proprietary elements of the System are:

- a. ENDURATM Block - A specially configured concrete aggregate block usually made in any one of three sizes; 8" wide x 8" high x 16" long, 12" wide x 8" high x 16" long and b" wide x 8" high x 16" long. The ENDURATM Block is created from a mixture of Portland Cement, sand, plasticizers, a combination various aggregates [pea gravel, cinders, pumice, expanded shale, etc] and water.

The ENDURATM Block may be manufactured in either the Columbia Machine Tools', the Besser Corporation's or any of a variety of other lesser known manufacturers' block making machines.

ENDURATM or an ENDURATM licensee supplies a block producing company with an owned block mold box to be run on the equipment of the block producing company. In the United States it is estimated that there are over 9000 block making machines being run by over 2000 block producing companies. Worldwide, though the exact numbers are guarded, there are estimated to be many thousands of machines and block producing companies.

ENDURATM, rather than create a machine to run its block chose to avail itself of this pool of equipment and companies which usually run at about 60% of capacity.

b, ENDURA™ Small Insulation Insert - The small insert is an uniquely configured bun of molded polystyrene plastic approximately 8" high x 2-3/8" wide x 7/78" long. It is molded with pins or protrusions raising above the top surface and pockets or indentations pressed into the bottom surface. The intimate fit of the pins into the pockets acts as an alignment aid when laying up the block wall. The outer, curved, face is molded with vertical grooves and ridges for compression and a back, flat surface, to precisely position the insert into the block and, subsequently, the block, in alignment, into the wall.

A fully insulated block requires two small inserts; a center [whole] insert and a half insert at each end, the other halves of the end inserts extend into the adjacent blocks locking them together and preventing thermal, gas and water infiltration or penetration through the otherwise unfilled crack between the fitted block.

By eliminating one or more of these small inserts an open core area is created within the wall for inclusion of rebar and grout as may be required for structure integrity.

These small insulation inserts are used in all three block widths 6" wide, 8" wide and 12" wide.

c. ENDURA Long Insulation Insert - The long insulation insert, used in the 8" wide and the 12" wide block [not the 6"] measures approximately 8" high x 1-11/16" wide x 16" long. It is positioned in the ENDURA block configuration to the outside face of the block wall and is normally always used in construction.

Like the small insert the long insert is molded with vertical ridges and grooves for compression when fitting into the block and for vertical [thermal] evacuation; these ridges and grooves are positioned to the outside face of the block.

d. Surface Bonding Cement - ENDURA™ uses is Structure/Coat, manufactured by JTL Company and is a proprietary mixture of ENDURA of Portland Cement, fine silica sand, fiberglass strand, plasticizers and hydrators. Structure/Coat is a dry mix requiring only [in the field] the addition of potable [drinkable] water.

As with the block, weight is an element which, because of the cost of freight, must be considered. To alleviate this concern, the proprietary chemistry is also available for shipment to any local area and may be mixed there with the Portland Cement and silica sand. [Should the relationship with JTL Company deteriorate for any reason other manufacturing sources are available for use.]

In addition to Structure/Coat, ENDURA* provides a top-coat or finish coat which when mixed with ENDURA® Bonding Agent provides various aesthetically pleasing finishes, in addition to those troweled finishes normal to the surface bonded or stuccoed wall. These finish coats have properties which resist the formation of hairline cracks in the new and aging wall.

Structurally, however, Structure/Coat is applied to both the inside and outside surfaces of the dry-stacked and insulated block wall and when, combined with "skip trowel" techniques, leaves a very beautifully finished, durable wall.

ENDURA™ has prepared publications covering the use, testing and architectural handling of the ENDURA Insulated Block Wall System. Included herewith are reproductions of some of the manuals available for both the 8" wide and the 12" wide block systems.