

# “WAL-MAT”

## TECHNICAL DATA

**Product Information:** WAL-MAT is a cardboard-based cellulose insulation product specifically designed for wall cavity spray applications. WAL-MAT is manufactured with natural, organic wood fibers, a permanent fire retardant (borate) and a dry adhesive to further enhance its bonding characteristics. This high-tack adhesive is activated with atomized water, forming a stabilized mache' to prevent settling of the insulation. WAL-MAT may be applied to virtually any residential or commercial structure.

**Thermal Performance:** WAL-MAT forms a monolithic blanket of interlocking fibers. This seals all voids and cracks around the plumbing pipes and electrical outlets. Studies have shown cellulose insulation outperforms traditional fiberglass batt insulation by nearly forty percent (40%). Proper application of WAL-MAT restricts transfer of heat by minimizing conduction, convection and radiation.

**R-Value:** The laboratory measure of a material's ability to resist heat flow is called R-Value. The R-Value of WAL-MAT is 3.7 per inch. Wall cavity spray applications fill all voids and cracks, forming a monolithic seal and will virtually eliminate air infiltration.

**Air Infiltration:** Nearly as important as R-value is air infiltration, which will determine the thermal performance of a building. WAL-MAT creates a true thermal break, making the transmission of air from one side of a wall to another virtually impossible. In contrast, fiberglass behaves similar to an air filter allowing the passage of cold or hot air. Numerous studies have shown that a 4% gap in a 3.5" sidewall will reduce thermal resistance by a minimum of 35%. These exposed areas allow air to infiltrate the home, seriously impairing the R-Value of the insulation.

**Sound Control:** The spray-applied blanket created by WAL-MAT provides a sound barrier wall by sealing off potential sound transmission points in the wall. Its high-density fibers naturally absorb noise and reduce sound transmission. It is highly recommended for interior walls such as bathrooms, kitchens, laundry rooms and between floors in two-story/basement homes.

**Fire Protection:** WAL-MAT is classified as a Class 1 Building material. The active ingredient, borate, provides fire protection for the lifetime of the building structure. A wall structure insulated with WAL-MAT will meet the criteria for a one hour fire rating.

**Fungus Control:** WAL-MAT is manufactured with two borate fire retardants (Board Defense and Zone Defense). The addition of Board Defense makes WAL-MAT mold and mildew resistant.

**Environmental Impact:** WAL-MAT is a non-toxic, natural wood fiber insulation product made from 100% recycled paper. It does not contain ammonia, formaldehyde, asbestos or man-made fibers. WAL-MAT requires very little energy in its manufacturing process. Conversely, man-made mineral fiber utilizes significantly less recycled material and consumes large quantities of energy in its manufacture.

**Product Warranty:** FTI warrants that WAL-MAT will not deteriorate and will maintain its ability to prevent fungus germination under normal and proper use for the lifetime of the building structure. Its installation will be free from defects if professionally installed according to instructions.



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## SUBMITTAL DATA

The following ASTM tests were conducted by R&D Services, Inc. in accordance with applicable ASTM Standards to complete the data required for ASTM C739 (Loose Fill Cellulose Insulation) and ASTM C1149 Type II (Self Supported Spray Applied Cellulose Insulation).

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| ASTM C739-05          | Complete/Pass                                         |
| ASTM C518             | 3.7 R per inch                                        |
| ASTM C1149-02 Type II | Complete/Pass                                         |
| ASTM E84-05           | Flame Spread Index: 15<br>Smoke Development Index: 10 |
| ASTM E970             | Pass                                                  |

WAL-MAT complies with CPSC Standard HH-I-515E, CPSC 16CFR Part 1209, CPSC 16CFR Part 1404 and UM-80 Guidelines (HUD, FHA). This product is formulated using an all-borate formula.

The Sound Absorption Coefficient (SAC) will vary with wall design, materials and applied density of the cellulose insulation. The Sound Transmission Classification (STC) rating will vary from 44 to 68 depending upon wall construction.

The Noise Reduction Coefficient (NRC) remains constant with this type of insulation. The NRC rating will vary from .75 to .82 of 1.0 depending on wall design, materials and applied density of the cellulose insulation.

WAL-MAT is formulated with 100% borate fire retardant for fire resistance and to protect the material from insect infestation and fungal growth (mold and mildew). Therefore, it contains no additives that are harmful to the environment, humans or pets, and will not off-gas or emit harmful chemicals or odors.



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