

# CORE FOAM Masonry Foam Insulation<sup>®</sup> Wythe Cavity Fill

## Not all amino-plast foam is alike.

Completely filling the cavity of double wythe masonry walls with foam insulation runs counter to conventional wisdom among some architects. However, some foam insulation contractors have successfully installed foam in this manner with success since 1978. The information below is intended to answer questions asked by cautious architects:

- **Drainage:** Can the insulated wall drain? If so, how?
- **Moisture:** What added provisions are there to protect against moisture issues?
- **Mold:** What assurance is there that mold will not result?
- **Formaldehyde:** Why is formaldehyde not an issue with **CORE FOAM Masonry Foam Insulation<sup>®</sup>**?
- **Track Record:** Is this system widely used? If so, where?

### How does the wall work?

**CORE FOAM Masonry Foam Insulation** sets up very quickly and fully cures within a few days. Placement within cavities provides an ideal curing environment resulting in minimal shrinkage whereby the insulation pulls away slightly from the wall surfaces. Fully cured **CORE FOAM Masonry Foam Insulation** provides an essentially monolithic barrier to penetrating moisture.

### What provisions are there in case the barriers becomes overwhelmed?

For new construction, **cfiFOAM, Inc.** recommends damp-proofing the backup CMU for added protection in case the wall's drainage capacity becomes temporarily overwhelmed. Though the cured foam creates a barrier, barriers like dams sometimes become temporarily overwhelmed. For new construction, installing cavity width strips of 4-lb/ft<sup>3</sup> mineral fiber drainage board at the base of cavities fully protects weep holes and further assures adequate drainage.

**CORE FOAM Masonry Foam Insulation** incorporates significantly less make-up water than is incorporated in factory pre-mixed foams. This means faster curing with little opportunity for "wet wall."

### What assurance is there that mold will not result?

Amino-plast foam e.g. **CORE FOAM Masonry Foam Insulation** is auto-toxic meaning that it inherently resists microbial attack and fungal growth. In fact demonstrations have shown amino-plast foam to kill most molds on contact.

### Why is formaldehyde not an issue?

Amino-plast foam insulation products (UFFI) sold before the early 1980s contained 30% or more free formaldehyde. Our resin is kiln-dried and shipped to dealers in dry powder format containing < 0.5% free formaldehyde; thus, meeting rigorous US/EPA formaldehyde content standards. **CORE FOAM Masonry Foam Insulation** represents generations of technical advancement beyond less sophisticated UF foam products formerly marketed in the US.

In the United Kingdom, the **BSI Quality Assurance Division** (a government agency) monitored homes insulated with UF foam insulation for 40-months. Only one per one thousand (0.1%) cases monitored even alleged any odor. Ventilation completely resolved all but 3 per 1,000,000 of these in 8 weeks or less. Beyond that, no one alleged health issues. Applying these statistics to the entire UK' wythe cavity UF foam experience involving nearly 3,000,000 masonry buildings clearly shows that odor was reported in 6 or 7 times with even fewer alleging health issues despite the fact that the statistics include earlier generation foams containing far greater amounts of free formaldehyde than does **CORE FOAM Masonry Foam Insulation**.

As an added precaution, recommended damp-proofing renders the back up concrete masonry wythe effectively less porous; thus, making it less conducive to vapor or odor passing through it into buildings' interior.

### Is this system widely used? If so, where?

In addition to hundreds of structures so insulated by insulators located in Missouri and Maryland, some two million structures are similarly insulated in the UK where the **Cavity Insulation Guarantee Agency** provides a written 25-year guarantee if the foam is installed by a registered professional insulation contractor.

