Moisture Control Prevents Mold Growth

When properly installed and maintained, GreenFiber™ insulation will not promote mold growth. GreenFiber™ insulation meets American Society for Testing and Materials (ASTM) C-739 and C1338[i], the industry standards for fungal resistance.

The Facts about Mold

Like dust and pollen, mold spores are ever-present throughout our environment. Mold is a fungus that can grow in many environments or on any surface that is wet and warm. Mold needs oxygen, temperature between 40°F and 100°F and relative humidity above 70%. Clearly, controlling excess water on humidity is important to prevent mold germination and growth.

Mold and Building Materials

GreenFiber is cellulosic material, as are the majority of building materials available today, including wood framing materials, drywall facing and kraft facing on fiberglass insulation batts. If a material is made from wood, cotton or other natural fibers, it contains cellulose.

In some instances, insulation is applied with limited amounts of moisture. In that respect, it is not much different from other materials – such as paint, caulk and cement – that are applied wet and set as they dry.

To reduce the opportunity for mold growth:

- Keep all building materials off the ground and dry.
- Inspect areas susceptible to water intrusion (site prep, all window installations, flashings, caulking, exterior grade doors, plumbing, below grade and above grade vapor retarders.
- Inspect the installation of above grade vapor retarders as specified. In some southern climates, the vapor barrier should be omitted, while in hot and humid climates, such as along the Gulf Coast and in Florida, the vapor barrier should be placed on the exterior of the wall.[ii]
- Design to ensure water vapor/dehumidification is properly handled by the HVAC system
- Control indoor humidity – operate exhaust fans in kitchens and all bathrooms.
- Vent dryers and all exhaust fans outside.
- Regularly inspect for water leaks, and repair immediately when discovered.
- Seal air leaks to prevent water vapor in air from entering walls and attics.[iii]

Be sure to follow all manufacturers' instructions for proper installation.

When Excessive Moisture is Evident

Evidence of moisture problems such as mold, stains and rot require immediate action. The key is to find and fix the source of water or humidity intrusion and repair and/or replace affected building materials. According to Greg Boothe, a certified industrial hygienist and partner of EHS Services in Franklin, TN says if you find and fix a leak within the first 24-48 hours, "you should be able to dry the area out thoroughly and not have mold."[iv]

All indications of mold must be removed after the moisture source is eliminated. Boothe suggests, "If affected areas can be replaced easily, such as drywall, insulation or wood sub-flooring; cut out the area and dispose of it. If materials cannot be easily removed, the EPA advises using a detergent and water solution to scrub mold off."[v]

"Many people make the mistake of thinking that you must dry out the area before removing the mold, and they set up large fans in the house. All this does is blow the spores all over the house. I recommend after scrubbing the area, if available, use a HEPA vacuum to clean the area thoroughly," states Boothe. [vi]

Summary

Proper structural and assembly design, construction and maintenance helps prevent mold growth in buildings. Controlling moisture is the best way to prevent mold growth – from the time of delivery and installation of construction materials to managing indoor humidity levels after the building is occupied.

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[i] "*ASTM C-739 Standard Specification for Cellulosic Fiber (Wood-Base) Loose-Fill Thermal Insulation*."
[ii] Dept. of Energy Technology Fact Sheet, "*Wall Insulation – Provide Moisture Control and Insulation in Wall Systems."*
[iii] Dept. of Energy Technology Fact Sheet, "*Air Sealing – Seal Air Leaks and Save Energy."*
[iv] "*Mold Poses Difficult Questions for Homeowners,"* The Tennessean, April 18, 2003 Friday 1st Edition, Marilee Spanjian. http://tennessean.com/williamsonam/archives/03/04/31715850.shtml?Element_ID=31715850
[v] EPA's "A Brief Guide to Mold, Moisture and your Home." http://www.epa.gov/iaq/molds/images/moldguide.pdf
[vi] "*Mold Poses Difficult Questions for Homeowners,"* The Tennessean, April 18, 2003 Friday 1st Edition, Marilee Spanjian. http://tennessean.com/williamsonam/archives/03/04/31715850.shtml?Element_ID=31715850

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