R SIPs

SIP No. 2053

Subject: **Mold in Houses**

Date: **November 2007 (Revised January 2015)**

The building industry is continually learning about the growth of mold in homes. Homeowners and building professionals are concerned over the potential for mold growth and the impact on the living environment. This bulletin is designed to provide a basic overview of mold in structures.

Mold problems in structures are normally directly related to a moisture problem. Common moisture problems are the result of water leaks and/or the lack of attention to flashing and building details.

Molds are a type of fungi in the same family as mushrooms and yeasts. Molds need the right conditions to grow. This is typically a temperature between 40°F and 100°F and 20% moisture content in the product they are attacking. Thus, an area of a building with a water problem is an ideal environment for mold growth. Under warm and humid conditions, they can quickly multiply and spread over wall surfaces and building materials.

Molds are an essential part of the world with the function of breaking down the basic components of plants and other natural organic materials. The molds of concern to the building industry get their nutrients from the starches and sugars in wood and paper products.

R-Control SIPs are a composite of Foam-Control Expanded Polystyrene (EPS) and Oriented Strand Board (OSB). Foam-Control EPS provides no nutrient value to plants, animals, or microorganisms. The OSB which is part of R-Control SIPs is organic and could be attacked by mold in the presence of excessive moisture.

R-Control SIPs can be manufactured with the FrameGuard® treatment, thereby reducing the opportunity for mold growth to occur within the OSB skin. Regardless of the OSB requested by the customer, code approved water management design should always be used in R-Control SIP construction.

R-Control SIP details provides for the proper installation of R-Control SIPs. R-Control Low VOC Do-All-Ply sealant and SIP Tape are critical components for the installation of R-Control SIPs (See Technical Bulletin sip no. 2047 and sip no. 2057). This is coupled with HVAC design (See Technical Bulletin sip no. 2051 and sip no. 2000) to ensure sufficient air changes and humidity control within the building. Following R-Control SIP details and proper HVAC design will help control moisture which could lead to a mold issue.

Moisture issues that occur in buildings should be addressed immediately. The list below shows many of the common items that could lead to the development of a moisture problem and subsequent mold issues.

1. Plumbing leaks
2. Ice Dams
3. Sky lights
4. Foundations (basements and crawl spaces)
5. Unvented combustion appliances
6. Improperly sized air conditioners
7. Leaky heating and air conditioning ducts
8. Excessive interior humidity
9. Lack of attention to flashing and building details.

If a mold problem is encountered in a structure, a building professional should be consulted immediately.

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R-Control SIPs are made exclusively with Foam-Control EPS. R-Control SIPs and Foam-Control EPS are manufactured by AFM Corporation licensees.