

Mold

Mold in homes and buildings can be a concern to homeowners and building professionals. Better building materials and construction methods will dramatically decrease the likelihood of mold issues.

Molds are part of the natural environment. Molds reproduce by means of tiny spores; the spores are invisible to the naked eye and float through outdoor and indoor air. Mold may begin growing indoors when mold spores land on surfaces that are wet. There are many types of mold, and none of them will grow without water or moisture. The key to mold control is moisture control.

Foam-Control Expanded Polystyrene (EPS) provides no nutrient value to plants, animals or microorganisms, and therefore is not a concern for mold growth. The Oriented Strand Board (OSB) faces of the SIP panels, like any wood product when exposed to moisture, are susceptible to mold, rot and mildew. The moisture can come from inside the structure as humidity or outside the structure as rain, mist or condensation. To eliminate these problems, the OSB must be kept dry.

Tips to keep OSB dry during installation:

Outside:

- = A drain plain, such as 30# building felt, should be installed behind any siding or roofing
- = All penetrations must be properly flashed
- = Any time wood, or fiber-cement siding is used over the OSB, it must be back and end-primed
- = In addition to these precautions, some climates may require use of a vent space between the siding or roofing and the exterior OSB skin of the SIP

Inside:

- = During construction, care must be taken to thoroughly seal all panel joints. This is done with expanding-foam sealant, mastic type construction sealant, and vapor barrier tape designed to adhere to OSB
- = Exhaust fans must be used in any higher humidity area such as kitchens and bathrooms
- = Buildings that contain pools, hot tubs, or any other extreme source of humidity will likely require mechanical dehumidification
- = Using an Energy Recovery Ventilator or Heat Recovery Ventilator is recommended; these units expel moist and stale air and bring in fresh air and in cool climates they keep interior humidity from becoming higher than outdoor humidity

The list below shows some common items that could lead to the development of a moisture problem and subsequent mold issues:

- = Lack of attention to flashing and building details
- = Leaky heating and air conditioning ducts

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- = Unvented combustion appliances
- = Sky lights
- = Plumbing leaks
- = Ice dams
- = Foundations leakage problems (basements and crawl spaces)
- = Improperly sized air conditioners
- = Excessive interior humidity sources

Steps to avoid these conditions should be thoroughly reviewed before construction or investigated if it has occurred.