PABCO® Gypsum
what the job demands™

Mold Growth in the Desert?

PABCO® recommends following the guidelines detailed in Gypsum Association (GA) publications GA-231 *Assessing Water Damage to Gypsum Board* and GA-238 *Guidelines for Prevention of Mold Growth on Gypsum Board* for water and mold concerns, and GA-801 *Handling and Storage of Gypsum Panel Products A Guide for Distributors, Retailers, And Contractors* for proper handling and storing of gypsum panels.

Introduction

Mold spores are everywhere, even in desert climate regions. If mold spores can be found indoors and outside, covering virtually every surface, then why don't we see mold growing over everything, you ask? In short, mold requires two things to grow—water and food.

Water is the key factor for mold growth, and the easiest to control or eliminate. Water can be provided in many ways, such as:

- Actual wetting
- Humid air
- Moisture wicking
- Condensation

It does not take a great deal of water for mold to grow.

Note: For clarity, when "water" is referenced, it can refer to any of the above sources.

Food sources are the hardest to control or eliminate, because mold can grow on virtually any surface, such as:

- Paper
- Cloth
- Wood
- Metal
- Plant material
- Soil

These materials are everywhere, including gypsum panel products, particularly paper faced drywall. While there are gypsum panel products manufactured to be mold-resistant, they will not be mold-proof.

Temperature plays a supporting role in mold growth. Some molds grow in warm areas, while others prefer cool locations such as bread stored in a refrigerator. Precautions need to be in place all year round if there is a sufficient water source available, i.e., rain, melting snow, humidity, etc.

Recent storms have hit the West Coast and Desert Southwest with very unusual amounts of rain causing flooding and lingering humidity, and as anyone in the construction business knows, this is a recipe for disaster. It is easy to forget the steps required to mitigate water exposure to drywall, particularly when the storms are a surprise, last longer than expected, or flooding prevents jobsite access. While it may be impossible to completely eliminate water exposure, it is possible to quickly provide conditions that allow the drywall to dry.

Although care must be taken to eliminate or, at best, minimize water sources before, during, and after construction to prevent the growth of mold, it is not to imply that once drywall is exposed, it is ruined. In those instances where drywall has been exposed to water, it is imperative that a means is provided to allow the panels to quickly dry. Sometimes the papers facers will show water stains, but if dried properly, mold will not grow. The difference between water stains and mold growth are unmistakable, as shown below:

Water Stains Mold Growth

Avoiding Exposure:

PABCO® recommends following GA-801 *Handling and Storage of Gypsum Panel Products a Guide for Distributors, Retailers, And Contractors* to ensure proper handling and storage of all gypsum panel products.

Following good construction practices will greatly decrease directly exposing drywall to water. Taking the step to ensure the building is properly dried in before stocking drywall prevents rainwater from pouring down on uncovered stacks of drywall. Also, when possible, space stacks of drywall when stocking so they are not touching anything to allow greater ventilation around the stacks.

If drywall has been stocked before the building has been properly dried in, cover while it is actively raining. It is important to uncover immediately after the rain has stopped. Leaving covered, even for a short time, creates the ideal environment for mold to begin to grow. A means of ventilation or airflow should also be provided, the humidity in the air can provide adequate water source for mold to grow too.

After Exposure:
Once raining has stopped and flooding is no longer a danger, all gypsum panel products on the jobsite should be inspected to determine the degree of exposure to water. If any stacks are sitting in standing water, they must be moved, or the water removed. Any gypsum panels that have been wetted will not have the structural integrity required to be handled and installed.

Gypsum can absorb approximately 10% of its weight in moisture before the panel becomes structurally unsound. Gypsum also has the ability to wick water and moisture from its surroundings, such as, the air, concrete, and adjacent or touching gypsum panels.

After water sources have been removed, it is imperative the drywall is allowed to dry properly and quickly. Air flow on and around stacked and installed panels is the best solution, either by natural ventilation from windows and open doors, or industrial air movers (blowers, fans, or compressors). The air flow must be constant and of sufficient strength to provide a noticeable draft.

Drywall is not the only building product that should be inspected after a flooding event. Insulation and wood framing can also absorb large amounts of water. Because drywall comes into contact to both when installed, they must be inspected and thoroughly dried before construction can proceed. On already constructed walls or ceilings, the drywall will need to be removed to inspect the insulation and framing. If this step is skipped, mold can grow and possibly go unnoticed until it becomes a larger problem.

Summary:
Gypsum panel products need to be protected from wet, humid, and moist conditions to prevent mold growth and other issues. Good construction practices greatly reduce creating favorable conditions that promote mold growth on installed and stacked gypsum panel products.
If, after all the efforts, mold still presents itself, PABCO® recommends following the guidelines in GA-238 *Guidelines for Prevention of Mold Growth on Gypsum Board* for remediation.

IMPORTANT: If there is every any question or doubt about whether gypsum panel products should be replaced, replace it. WHEN IN DOUBT, THROW IT OUT.

NOTE #1: In high humidity conditions, even while not raining, there is an increased probability of mold growth; recall that gypsum can absorb moisture from the air. It is recommended to supply adequate ventilation during this time as well.

NOTE #2: Mold growth is unpredictable. Often, one unit will be covered, and an adjacent unit will show no signs of growth. This is not to say that ventilation is not needed in the mold-free unit, it shows that mold will grow where and when it wants to.

NOTE #3: Good construction practice will greatly decrease the occurrence of mold growth during times of rain, flood, or high humidity.

Many sources have predicted a very wet winter for much of the West Coast and Desert Southwest. Be prepared and save cost and time!

For more information, please contact PABCO® Technical Services at techservice@PABCOgypsum.com or 866-282-9298.