Weatherwise

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Warm Weather Gypsum Board Guidelines

Drywall can be affected by cold temperatures due to the moisture content within the boards. Joint compound, on the other hand, is more sensitive to heat and relative humidity, which directly impact its drying time and overall quality of the installation.

*As long as we monitor and understand the temperature and humidity levels in the area, installing joint compound should not be a major obstacle. One effective way to improve unfavorable conditions is by using fans to circulate air around the space—**not** aimed directly at the joint compound, but rather positioned (for example) down the center of a hallway.*

Also keep in mind that as more compound is applied, the relative humidity in the space will increase.

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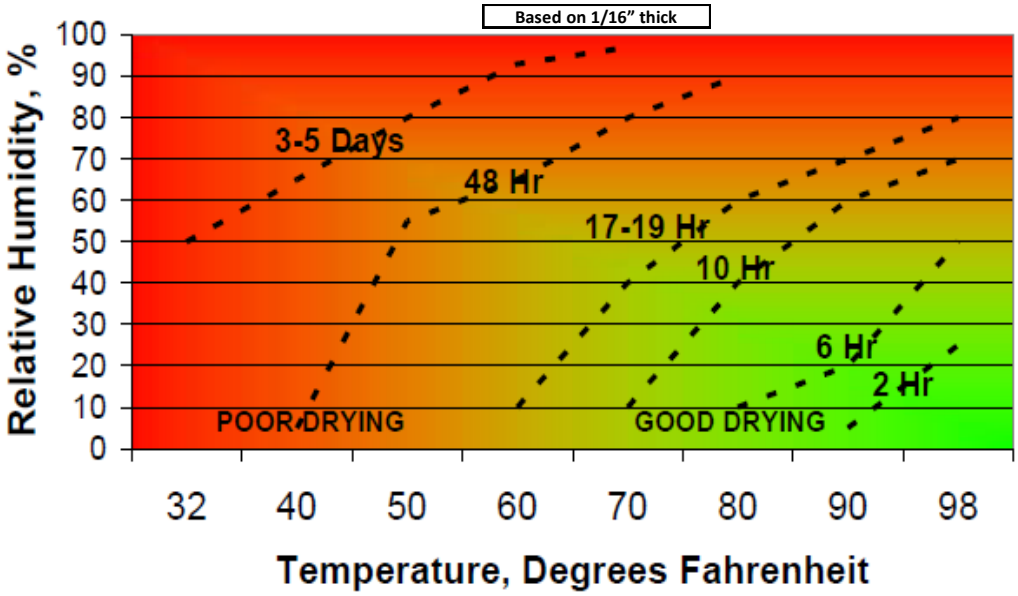
- ❒ All water based joint compounds ranging from lightweight (less than 12 lb/gal) to heavyweight (greater than 12 lb/gal) are affected by jobsite environmental conditions—Heat and relative humidity.
- ❒ When applied at the same thickness, drying time of a joint compound will vary depending on the temperature and relative humidity, with relative humidity being the dominant factor.
- ❒ High humidity conditions slow the evaporation of water which can delay drying of joint compounds for long periods of time.

Joint Compound Drying Time

As a function of temperature at specific relative humidity



Graph Reference – The color-coded graph provides an easy-to-interpret map of joint compound drying time ranges based on the relative humidity and temperature conditions present on a job. To estimate joint compound drying time, simply select and cross-reference a temperature and relative humidity range to determine approximate drying time per coat (1/16 inch nominal).

GOOD Green shaded areas are environmental conditions that provide best drying.

FAIR Yellow shaded areas are environmental conditions considered to be reasonable drying conditions. However, longer drying times - up to 48 hours between coats - are possible depending on temperature and humidity levels.

POOR Red shaded areas are environmental conditions to avoid. Significantly longer drying times over 3 days, also known as poor or slow drying conditions exist. Such unfavorable temperature and humidity conditions can lead to finishing problems.

❒ Second and subsequent coat applications may also be inferred by use of the same information.

Changing Job Conditions and Drying

❒ As the job atmosphere becomes more humid and saturated with water during the joint treatment operation drying time can increase.

❒ For example; at 55°F (with little ventilation), there can be as much as a 4X increase in drying time if room humidity elevates from 50% to 90%.

Environmental Control

❒ Temperature, humidity, and airflow should remain constant, and as close to occupancy conditions as possible

❒ The potential for finishing and decorating problems is minimal when job environmental conditions match occupancy environmental conditions.

❒ Controlling and maintaining environmental conditions is key. Changes and/or fluctuations in temperature, humidity, and airflow can have a profound adverse effect.

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