



Drywall is affected by the cold temperatures, due to the moisture in the board. Drywall compound, however, is affected by heat and relative humidity, due to the drying time of the compound. As long as we understand the effects of temperature and relative humidity in the area, installing joint compound is not an stumbling block. One way to help an adverse condition, is to add fans to blow around the area...not directly on the joint compound (down the middle of the hallway). Another thing to consider regarding relative humidity is that the more you install compound, the more humid it gets in the space. If you need a monitor or a gauge, please let me know as soon as possible.

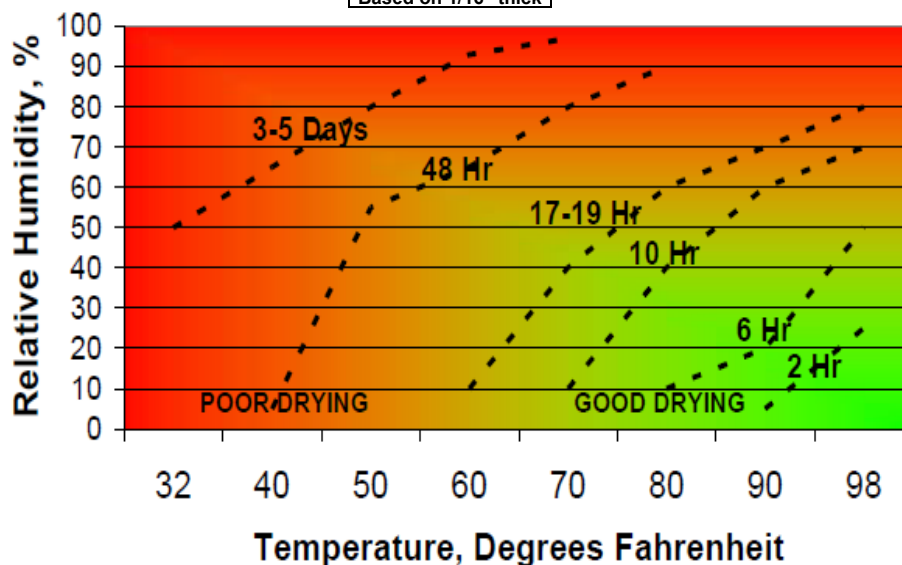
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- ❑ All water based joint compounds ranging from lightweight (less than 12 lb/gal) to heavyweight (greater than 12 lb/gal) are affected by jobsite environmental conditions—Heat and relative humidity.
- ❑ When applied at the same thickness, drying time 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.
- ❑ Second and subsequent coat applications may also be inferred by use of the same information.

Joint Compound Drying Time

As a function of temperature at specific relative humidity

Based on 1/16" thick



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.

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.

