

Finishing SHEETROCK® Brand Gypsum Panels

Cold or Humid Conditions

Joint compounds, textures and paints perform best at temperatures and humidity that are also comfortable for people. Applying finishes in cold temperatures and high humidity can cause product failure that may result in extensive and costly repairs. Avoid problems from cold and wet conditions when taping, finishing and decorating by following the simple recommended procedures described below.

Controlling temperature

All joint compounds, textures and paints must be used at a temperature of 55 °F or higher. When used at lower temperatures the drying times of such products are lengthened and, as a result, their bonding capabilities reduced. This can lead to job delays, joint cracking, bond-to-tape failure and joint compound, texture or paint delamination.

The best method for raising temperatures to acceptable levels during joint finishing is to use the existing central heating sources of a building. Unvented temporary heaters may produce fumes that can stain surfaces. These stains can then bleed through textures and paints to show on the completed finish. Unvented heaters also add water vapor to the air, slow drying, and produce uneven heat throughout the building.

Controlling humidity

Relative humidity on the jobsite should also be controlled because high relative humidity can slow the drying time of finishing and decorating materials. Also, as joint compounds, textures and paints dry they release moisture into the air that adds to humidity, lengthening drying times even further.

To reduce relative humidity you must raise the temperature and provide adequate ventilation so that moisture can move out of the building. The following chart shows relative humidity levels at different temperatures at which joint compounds, textures and paints will dry within 24 or 48 hours.

Drying Time		Temperature								
		50 °F	55 °F	60 °F	65 °F	70 °F	75 °F	80 °F	85 °F	90 °F
24 hours	%RH:	23%	37%	50%	59%	67%	71%	76%	79%	84%
48 hours	%RH:	65%	71%	76%	81%	85%	88%	90%	92%	93%

As a general rule, raising the temperature by 5 °F will lower the relative humidity by 15%. For example, when the relative humidity is 65% at 55 °F, raising the temperature to 60 °F will lower the relative humidity to 50%. Adequate ventilation is required to allow the water evaporating from the joint compounds, textures and paints to escape the building. When corner angles dry at the same rate as the other joints being taped and finished, the ventilation is adequate.

If adequate ventilation is provided, the relative humidity given in the local weather report can be used to determine drying times. When you are unsure about whether a joint compound, texture or paint is dry, place your hand over the area in question, then place the same hand on a nearby area (non-metal) that has not been coated. If the joint compound, texture or paint feels cooler than the adjoining area, it's not dry yet. More time must be allowed before recoating.

Be sure to follow these simple guidelines to control the temperature and humidity of your job site—it pays off in the long run and helps ensure the best results.



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Safety First!

Follow good safety and industrial hygiene practices during handling and installing all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.