

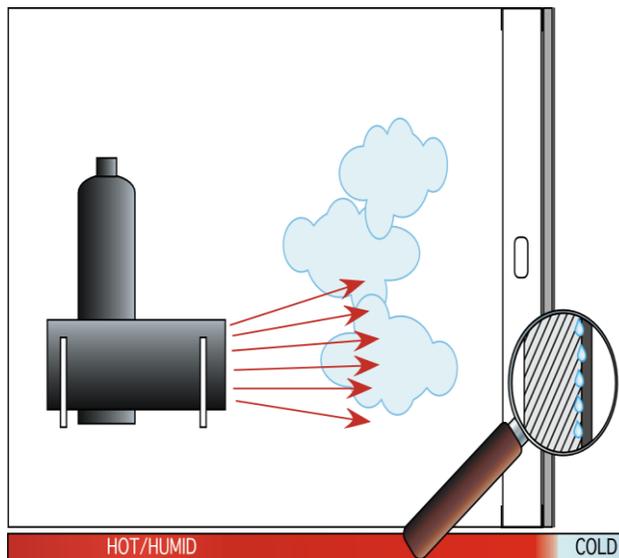
Tech Hotline

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Temporary Heating of EIFS Installations in Cold Weather

Construction during the winter months requires extra care to protect unfinished work from the effects of cold weather. EIFS substrates and EIFS materials should be kept at a minimum of 40°F (5°C) until all materials have adequately cured or dried. This may require temporary heat for the interior side of the wall during the installation of sheathing membranes (e.g. StoGuard, Sto Flexyl) and insulation adhesives.

Contractors should be aware that temporary heat used on the interior of a building may adversely affect the uncompleted EIFS installation. One form of temporary heat comes from the burning of hydrocarbon fuels such as propane. These fuels burn oxygen in the air to produce heat with carbon dioxide and water vapor as byproducts. The temporary heat is usually required to dry and cure other materials such as concrete, mortar and drywall joint compound. The interior drying adds significant additional quantities of water vapor to the air. The large amount of water vapor in the air greatly increases the vapor drive through the cladding material towards the exterior.



If the EIFS assembly is incomplete, for example sheathing installed but not the exterior insulation, the dew point will occur at or near the exterior surface of the sheathing. Although the sheathing or coatings over the sheathing may be vapor permeable, the unusually large amount of vapor may exceed the ability of the materials to allow it to pass. The consequential buildup of water and freezing at that location may cause deterioration of the sheathing material or coatings applied over them.

Recommendations

When installing StoGuard, Sto Flexyl or other weather barriers during the cold weather months, temporary heat protection should be installed on the exterior of the wall until the full EIFS is installed and sufficiently dry to remove the protection. Do not leave StoGuard, Sto Flexyl or other trowel applied weather barriers as the exterior finish over sheathing during winter months without installing the EIFS.

Forced air heaters, which create larger volumes of water vapor, should be vented to the exterior where the water vapor will not condense on building materials. Consult the heater manufacturer for proper use and ventilation.