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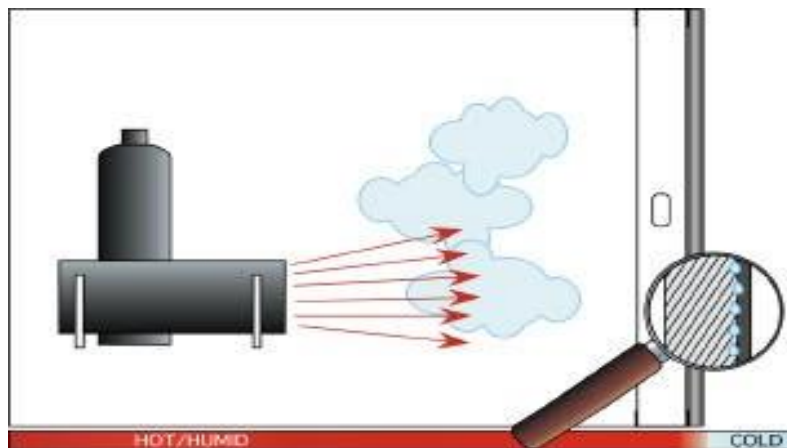
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Effects of Temporary Heating on Construction Materials in Cold Weather

Construction during cold weather months requires extra care to protect construction materials from the unintended consequences of temporary heating. Water-based materials such as Sto air barriers, coatings, and textured finishes, and all Sto 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 from 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 materials that are installed on the outside of the wall. 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 wall towards the exterior. A dew point may occur at or near the exterior surface of sheathing. Even if the products applied on the exterior of the sheathing are water vapor permeable, the unusually large amount of water 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. When installing StoGuard®, Sto Flexyl or other weather barriers during cold weather months, temporary heat protection should be installed on the exterior of the wall until sufficiently dry to remove the protection. Do not leave StoGuard®, Sto Flexyl or other coating materials as the exterior finish over sheathing during winter months when temporary heaters are used on the interior without ventilation. Forced air heaters, which create large volumes of water vapor, should be vented to the exterior to prevent water vapor condensation on or within building materials. Consult the heater manufacturer for proper use and ventilation.