

“411”

INFORMATION PLEASE...

Technical Data for Fire, Smoke and Water Damage

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Wet Drywall – Restore or Replace?

Drywall is used as an interior finished product in most residential and commercial construction today. The basic substance, a grayish natural rock mineral, that is crushed, dried, ground to powder, and heated forms “gypsum,” also known as plaster of Paris. Gypsum is then mixed with water and other ingredients, creating a liquid that is sandwiched between two sheets of special paper and completely dried, forming common drywall. Understanding its makeup helps to explain why “drywall” is so susceptible to water damage. When it is exposed to water, drywall tries to revert back to its original, liquid state.

Traditional methods of restoration often involved removing wet drywall material and replacing it. Today, this “old” style of thinking is outdated because now it is possible to dry and restore water-damaged drywall. A professional restoration contractor will have an arsenal of professional instruments that will enable him/her to make

decisions based on facts, not history or habit, and the equipment and procedures to accomplish the task.

The first consideration must be to determine the source of the water damage. Was the water that entered the building clean, gray, or black water? Clean water is from a source that does not pose substantial harm to hu-

man from water running down the face or back without serious damage. On the other hand, drywall that becomes saturated may lose its structural integrity depending on the elapsed time of saturation. When this occurs the drywall remains damaged even after “drying.” The surface may appear to be undamaged, but the structural integrity is compromised.

Normally, drywall installed on the ceiling is more seriously affected than when it is installed on walls.

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mans, such as water from a damaged fresh water line. Gray water contains some degree of “normal” household contamination such as a dishwasher or washing machine overflow. Black water always contains pathogenic agents hazardous to the building inhabitants. Examples of black water include raw sewage or rising water from flooding. Drywall damaged by black water should be replaced.

Next, the extent of the water damage must be determined. Walls can become wet

Generally, when water falls on the horizontal surface of the ceiling system, it has nowhere to go, except to soak in. Most ceilings are constructed with a series of closed cavities. Standing water soaks into the unpainted paper backing and saturates the sheetrock. A professional inspection of the affected sheetrock using electronic moisture meters will identify hidden moisture. If the saturated drywall shows any indication of “bowing” or loosening, replacement is indicated.

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Vertical drywall is either painted or has a wall covering on the surface. Water can run down the face without saturating the sheetrock. The structural integrity of the wall tends to remain intact under most situations. When water accumulates on the floor or in the floor covering, it saturates the base of the wall. This can damage the sheetrock if the water is not removed quickly. If the baseboard covers the sheetrock to a greater height than the water, including the upward wicking action, the sheetrock damage may be limited to just sealing and painting the affected areas. If the water level exceeds the height of the baseboard, significant damage can occur. The professional restoration technician must determine if the base plate inside the wall is wood or metal. A metal base plate has a "C" channel that will act as a reservoir and will hold water. That water must be removed to allow thorough drying of the interior of the wall cavity. A professional restoration business will conduct a detailed inspection with

moisture meters to determine if drywall replacement is necessary.

In many situations where clean water is involved, drying can be accomplished by installing a balanced drying system and utilizing appropriate air movement and dehumidification. It may be necessary to install air movement behind the drywall, accomplished through the use of specialized air movers and small holes normally placed behind the baseboard. Therefore, repairs are often limited to replacing the baseboard.

Time is of the essence—a rapid, professional response is the best way to save the drywall. In many situations, delay in drying will result in the need to remove and replace the drywall. When mold growth is visibly present, the affected sheetrock must be removed to eliminate the source of the contamination. When this is not done, additional mold growth and/or cross contamination can spread to other areas and cause secondary damage, sometimes throughout the structure.

When drywall removal is necessary, it is often less costly to remove and replace to a greater height than the actual water-damaged area. For example, replace drywall up to the tape joint because it will be much easier and faster, resulting in significantly lower labor costs. Other reasons for removal include: removing a ceiling to expose hardwood on floors above in order to allow for ventilation from below and, of course, safety issues preventing collapse as a result of saturation.

It is essential that professional standards and protocols be followed in the remediation of water-damaged buildings. A professional restoration business will know the correct methods and procedures to successfully mitigate the loss and restore the property. Using a qualified professional restoration firm will minimize the damage, return the property to a pre-loss condition quicker, and minimize the necessary costs.

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