



Gypsum Wallboard and Adhesive (Masking) Tape

Adhesive tape is commonly applied over finished gypsum wallboard for a number of reasons. When removing adhesive tape, occasionally portions of paint, joint compound or, in severe cases, gypsum wallboard face paper may be removed. This is sometimes looked upon as a failure in the paint or joint compound. This typically occurs when the adhesion of the masking tape is greater than the cohesive strength of the joint compound or coating materials and should not automatically be considered a failure. When evaluating a typical interior gypsum wallboard assembly, it should be understood that the finishing compounds typically have the lowest cohesive strength of the entire assembly.

FINAL DECORATION OF GYPSUM WALLBOARD:

To help protect this low cohesive strength, primers and paints shall be applied in accordance with manufacturer's recommendations. Moisture that enters and becomes trapped within the system can rewet and compromise the cohesive strength of the joint compound and face paper, and in some cases even swell the wallboard and materials. Jobsite conditions that are not within standards may also delay drying times which could result in weakening the assembly.

Primers that are designed to be applied directly over gypsum wallboard and compounds are often referred to as "drywall primers." There are primers formulated to either, increase adhesion, minimize porosity, prepare the surface for paint and so on. Primers with different performance levels can affect the assembly.

ADHESIVE TAPE APPLIED TO FINISHED GYPSUM WALLBOARD:

The sheen of paint can also affect the bond of the adhesive tape. Typically, adhesive tape bonds greater to non-gloss paints than gloss paints. All primers and paints are recommended to be applied at their designed wet film (mil) thickness by either a roller or a sprayed and back-rolled application, keeping a wet edge.

For delicate surfaces, such as freshly painted walls, an adhesive tape with the lowest adhesion level is recommended.

Adhesive tape should be applied to clean cured surfaces with standard hand pressure, not burnishing the adhesive tape. It is advised to first try a location to see how the tape may act with the gypsum wallboard, i.e. will it fracture the paint and joint compound from the surface, damaging the finishes.

It is recommended not to leave adhesive tapes applied to surfaces longer than manufacturers' recommendation; adhesion increases the longer it is applied to the surface. Exposure to direct sunlight can shorten these periods as well and so quicker removal in these instances may be required to avoid damage.

ADHESIVE TAPE REMOVAL:

Major adhesive tape manufacturers, recommend adhesive tape should be removed at a 45° angle from the decorative surface and at a speed of 1 inch per second. If the adhesive tape starts to remove the paint from the surface, try scoring the edge of the tape with a razor blade before pulling.

At the present time, there is no industry standard or recognized test for measuring adhesion with the use of adhesive tape over final decorated gypsum wallboard. ASTM D 3359 (Standard Test Methods for Measuring Adhesion by Tape Test) are methods covering procedures for assessing the adhesion of coating films to metallic substrates, and is often misused as a tape test for gypsum wallboard with final decoration.

Due to the unlimited number of primers, sealers, paints, method of applications, job site conditions, adhesive tapes, etc, it is recommended that a mock-up be constructed, evaluated and accepted by responsible parties for cosmetic acceptance and durability before any production decorating is started. The mock-up should remain intact until the project is completed.

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