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## **SURFACE PREPARATION OF PAINTED, COATED OR SEALED SURFACES**

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Paints, coatings, sealers and other foreign materials act as anti-adherents and bond contaminants for tile setting materials. Paints and coatings act as sealers which eliminate water penetration and prevent direct adhesion to the substrate. Paints and coatings do not have shear bond strength to hold a tile unit and cannot withstand the shock and use associated with a tile unit. Installation failures occur when the tile setting material (mortar or mastic) releases from the paint or coating and the setting material remains fully attached to the tile. Failure may also occur when the paint or coating releases from the substrate with the setting material and paint remaining fully attached to the tile.

Ideally, surfaces to receive tile must be clean, dry and free from grease, oil, dirt, curing compounds, sealers, adhesives or any other contaminant that would prevent a good bond. All surfaces to be tiled should accept water penetration in order to form a good mechanical bond. To determine if coatings, sealers, curing compounds or other foreign materials exist in or on the substrate, sprinkle water on various areas of the substrate to be tiled. If water is absorbed, a good bond should be formed. If water beads and does not penetrate, loss of adhesion may occur.

If drywall is painted, we recommended that the paint be sanded, scraped or chemically stripped to expose the original drywall surface to guarantee an acceptable bond. In remodeling projects, this may not be practical. Extra care must be taken to remove all peeling paint, sand and clean the surface thoroughly. Bond tile only with a polymer-modified thin-set mortar.

Although not ideal, Custom® does support adhering tile over properly prepared cutback adhesive over concrete substrates. Thick accumulations, powdery, brittle or weak adhesive layers must be removed. Use extreme caution as adhesives may contain asbestos fibers. Do not sand or grind adhesive residue, as harmful dust may result. Use the wet-scraping and wet-sweeping method outlined in the Resilient Floor Covering Institute pamphlet *“Recommended Work Practices for Removal of Resilient Floor Coverings”*. Never use adhesive removers or solvents, as they weaken or soften the adhesive and may cause it to penetrate into the concrete. The remaining residue should be no thicker than a coat of paint and should be almost transparent. Always install an adequate number of properly located test areas.

ANSI A108.1 A-3 General Requirements for Tile Installations states that the tile contractor is responsible to inspect surfaces to receive tile and notify the designated authority of conditions that will prevent a satisfactory tile installation.

Section A-3.1.1 explains that all surfaces to receive tile may be clean and free of any foreign matter that will inhibit proper bonding of tile to the substrate. It is important for the installer to focus on proper substrate preparation to avoid costly callbacks.

If you have any questions regarding removal of bond contaminants contact Technical Services.

### **REFERENCE DOCUMENTS**

ANSI A108.1  
TCA Reference Manual D-1  
MMSA Bulletin No. 5

