



TECHNICAL BULLETIN

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RE: Ceramic tile installations over gypsum cement floor underlayments.

Gypsum cement floor underlayments are now being specified in multi-level condominiums, high-rise office buildings and for radiant heated floors in conjunction with ceramic tile and dimensional stone installations.

Past technology did not permit tiles to be installed directly to the surface of a gypsum substrate with Portland cement based dry set mortars. With advances in higher compressive strength gypsum products (2000 psi or greater) combined with elastomeric mortars technology, Tex-Rite can now recommend tile installations over certain gypsum based underlayments. However, these new installation methods require special surface preparation in conjunction with applications utilizing Tex-Rite's **UniFlex** or **HydroRite**.

Both **UniFlex** Elastomeric Dry Set Mortar and **HydroRite** produce tenacious bonds to these high compressive strength gypsum underlayments and provide crack isolation protection for the tile installation. Tile can be installed over these gypsum floor underlayments in areas designated as interior, dry, and above grade floors for residential and light commercial traffic. Once the high compressive strength gypsum underlayment is properly installed and cured in accordance with the manufacturer's directions, preparation for the installation of ceramic tile may begin. Surface preparation steps are as follows:

STEP 1. The underlayment must be sufficiently dry and properly cured to the manufacturer's specifications for permanent, non-moisture permeable coverings.

STEP 2. The surfaces to be tiled must be structurally sound and meet IRC or IBC building codes. Surface shall be dry and free of all grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, old adhe-

sive residue, gypsum based patching compounds and any other foreign matter.

STEP 3. All Gypsum cement underlayment surfaces to receive **UniFlex** or **HydroRite** must be primed. The primer shall be from the gypsum underlayment manufacturer (diluted and applied per manufacturer's instructions), undiluted Tex-Rite LA-O-TEX Admixture or undiluted A-Crylic Grout Admixture applied at a rate 250-300 sq. ft./gallon. The primer can be brushed, rolled or sprayed to achieve an even coat. On extremely porous surfaces, two applications may be required. Allow the primer coat to thoroughly dry 24 hours.

STEP 4. For a single step application, **UniFlex** can be applied to the primed gypsum cement underlayment and used as the setting material for the tile or stone while providing a crack isolation membrane. Refer to the **UniFlex** product data sheet or packaging directions for the correct mixing and application instructions.

For a two step application, HydroRite can be applied to the primed gypsum cement underlayment to function as a crack isolation membrane and, once cured, TexRite's CeramaFlex may be used as the setting material for the tile or stone.

Expansion joints shall be installed in accordance with local building codes. Movement joints around the perimeter of the installation are extremely important for this type installation. See EJ 171 in T.C.A. Handbook for detailed specifications. Expansion joints, control joints and cold joints should never be bridged with setting material.

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