



TECHNICAL BULLETIN

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RE: Problems with exterior installations when using HydroRite over exterior plywood and Cementitious Backer Unit substrates.

HydroRite (a liquid applied waterproofing membrane) has been used on exterior ceramic tile installations including roof decks, balconies, lanais, and above grade walkways. Excellent results are expected when the surface and structure are both constructed with conventional concrete or masonry systems.

However, we have encountered some installations over structures constructed of wood framing covered with plywood sheeting. There are no existing ANSI specifications for exterior ceramic tile installations over wooden structures.

Currently, the TCA handbook has one detailed specification for exterior installations over wood framing. TCA F103 includes a properly sloped, wire reinforced, 1-1/4" min. to 2" max. mortar bed placed over 1" crushed stone (drainage) bed as an approved surface to receive tile. The TCA also states that this method is not reliable in areas subject to freeze-thaw cycles.

In efforts to waterproof exterior tile installations, we have seen some applications of **HydroRite** directly bonded to plywood or Cementitious Backer Units that are nailed to plywood. A large number of these have resulted in water leakage and tile bond loss.

Wooden frames or substrates on exterior applications are continually subjected to excessive movement due to moisture and thermal conditions. This is especially true when the structure is

exposed to exterior conditions from underneath. These conditions can loosen fasteners which can puncture the HydroRite waterproofing and they can generate sheer forces exceeding the limits that tile can be installed successfully over HydroRite

Texas Cement Products does have sheet applied membranes that, when installed according to specific instructions, will perform under these types of demanding conditions. Please contact our Technical Department for specific recommendations.

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