



## Technical Bulletin # 103

### RE: ULTRACURE 971 Over Exterior Wooden Structures

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ULTRACURE 971 Over Exterior Wooden Structures -- Detailing applications and possible complications when using UltraCure 971 over exterior plywood and Cementitious Backer Unit substrates for exterior installations.

We have found that UltraCure 971 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 only 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 UltraCure 971 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.

We believe that wooden frames or substrates are continually subjected to excessive movement due to moisture and thermal conditions. These conditions generate shear forces exceeding the limits that tile can be installed successfully.

Presently C-Cure does not have a recommendation other than the TCA Specifications for bonding or waterproofing over exterior wooden structures.

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