

BAYSET TECHNICAL BULLETIN

TILING AFTER A FLOOD EVENT

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Following the recent flooding events in Townsville and the surrounding area, questions regarding the restoration/replacement of affected tiled areas are commonly raised. The short answer is that each tile installation must be assessed individually, as the effects of the inundation will vary.

Ceramic tiles, including porcelain, vitrified or glass tiles are not usually affected by water, including flood waters and for this reason are the most common floor covering used in wet areas such as bathrooms, laundries, saunas and swimming pools. Poor quality tiles, however, may exhibit permanent expansion and staining. Often there is no option but to replace these tiles. Similarly, stone installations may also require replacement due to staining, warping or expansion.

Good quality cementitious tile adhesives and grouts are also not usually affected by water submersion over the short to medium term. However, while the adhesive itself may not be affected by the flood waters, the entire system, including the substrate, is likely to be saturated and a number of mechanisms, including contaminants and chemicals in the flood water, may well cause the tiles to delaminate as the system dries out. These effects may be delayed and not appear for several weeks after the flooding event.

Tile installations on timber substrates are not likely to remain intact after a flood event.

Should the tiles have to be replaced, there are a number of factors which must be considered before the installation begins. Flood waters may contain chemical contamination, such as pesticides, oils or solvents and high bacterial loads from effluent, dead animals and animal wastes, especially in agricultural areas. It is crucial that the affected areas are thoroughly cleaned and decontaminated prior to the demolition of the tile installations and again before the installation of new tiles begins.

The moisture content of the substrate is also important to consider. Tiling Products Australia recommend that the relative Humidity (rH) of a cementitious substrate, such as concrete should be no higher than 75%. Tiles may be installed onto substrates with higher rH content using a cementitious tile adhesive from the TPA range, however, a water-based epoxy barrier such as WPA 560 must be applied prior to the application of a Universal Primer and the tile adhesive.

In all cases the tile installation must be carried out in accordance with AS 3958.1 – 2007 Guide to the installation of ceramic tiles and the relevant TPA Technical Data Sheet.

IMPORTANT: This Technical Bulletin provides guideline information only and is not intended to be interpreted as a general specification for the application/installation of the products described. Since each project potentially differs in exposure/condition specific recommendations may vary from the information contained herein. For recommendations for specific applications/installations contact your nearest Bayset Office.