

## Technical Release

Efflorescence is a natural phenomenon of Portland cement and is a situation often met by manufacturers of concrete-based products.

The apparition of efflorescence is mainly due to the chemical composition of cement. Cement contains free chalk and when mixed with water, a chemical reaction happens, which produces chalk containing high levels of Calcium Hydroxide.

If Portland cement-based products are exposed to important changes in humidity and/or climate conditions of humidity variation, the evaporation of said humidity to the surface will create limestone deposits (whitish salt or stains) when drying. This is the chalk surplus produced during the hydration which appears on the surface.

Water, which is responsible for this apparition, is also responsible for its disappearance. Rainwater, containing carbon dioxides from the air, will dissolve and remove the surface stains. A hot and dry temperature will also assist in reducing these deposits quicker.

Efflorescence does not affect in any way the performance of concrete-based products and is instead a superficial and natural phenomenon. When the product is installed during the summertime, where temperatures are at their hottest and driest, efflorescence possibilities are almost none. To correct this issue, you can either wait for the nature to do its work or use an efflorescence cleaner.

For additional information, do not hesitate to contact us.

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