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STOPPING EFFLORESCENCE ON EXTERNAL
TILING THROUGH DESIGN AND CONSTRUCTION
PRINCIPLES.

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ABSTRACT

One of the most unfortunate outcomes that can occur for external façade and deck tiling is when the face of the finished work becomes disfigured by a build up of efflorescence stains.

These ugly disfigurements are usually a calcium based deposit arising from soluble salts within the bedding mortar and elsewhere in the tiling system that become insoluble when they react with the atmosphere.

This paper will look at the most common types of soluble salts and where they come from, showing that some soluble salt is almost inevitable in cementitious systems.

So if the problem cannot be stopped at the source, it must be controlled. Far from being difficult, this is easy if just a few rules are followed.

In simple terms the paper sets out the two main principles: “Limit water ingress” and “Control water egress”

A series of slides shows how the flow of subterranean water can be directed to pre designed outlets so no efflorescence appears on the face of the tiling. Photos from projects where efflorescence staining has been successfully designed and constructed out are also included.

There is a message in this paper for architect, designers, builders, and tile installers, and if ensuring external tiling looks good there is also some benefit for tile manufacturers.

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