

DID YOU KNOW?



Hints and tips from the Technical Department

PAINTING FRESH CEMENT PLASTER

Cement is made from a mixture of components found in natural materials such as limestone, clay, sand and/or shale. When cement is mixed with water, it can bind sand and gravel into a hard, solid mass called concrete. Four essential elements are needed to make cement. They are Calcium, Silicon, Aluminium and Iron. Calcium (which is the main ingredient) can be obtained from limestone, whereas silicon can be obtained from sand and/or clay. Aluminium and iron are only added in small amounts.

- Cement mixed with water, sand and gravel forms concrete.
- Cement mixed with water and sand forms cement plaster.
- Cement mixed with water, lime and sand forms mortar.

When water is added to cement some of the natural salts dissolve into the water. During curing the plaster uses the water in a chemical reaction that sets the plaster and hardens it. During this process, there may be excess water, which will evaporate through the surface of the plaster. The dissolved salts are carried to the surface with this excess water, and then dry on the surface. These dry salts are called efflorescence.

Cement manufacturers have guidelines for the mixing and curing of cement products, as specific conditions are required to ensure the cement product reaches its maximum strength. If all the conditions are not met, the cement product may have reduced performance properties such as low impact strength or poor adhesion to the substrate. It is our recommendation that the manufacturer's instructions be closely followed in relation to the mixing and curing of cement and bagged plasters.

In cases where the plaster is not able to be cured for the recommended time before painting, a sealer is required which will do the following:

- Adhere to the wet plaster
- Block any soluble salts trying to reach the surface due to water evaporation

As the sealer is required to block the soluble salts, it follows that it will affect the evaporation of the water as well. This will affect the curing of the plaster as the specific conditions as recommended by the cement or plaster manufacturer have been altered. Curing of the plaster could be delayed and other performance properties may be affected.

Taubmans Tradex Limeblock may be used on uncured cement plaster to prevent efflorescence, with the knowledge that the curing and final characteristics of the plaster finish may be changed. It is not recommended that the product be used as a standard practice, but rather in cases where the urgency of completion of the job outweighs the cost of any possible reduced performance properties. We do not recommend the use of Taubmans Tradex Limeblock on any Granosite / Nu-Age plaster systems.

This information is a recommendation based on our extensive experience but not intended to provide a guarantee. Use of any Wattyl or Taubmans product is conditional upon the Wattyl (N.Z.) Limited standard "Conditions of Sale" and is in lieu of all other warranties and/or conditions, whether expressed or implied, and all other obligations other than warranties or conditions which arise by operation of law and are not capable of being negated or modified by agreement. Nothing contained in this advice is intended to limit or replace any rights the customer has under the Consumer Guarantees Act 1993.