

# EFFLORESCENCE REMOVAL

## General

Efflorescence or lime bloom are popular names given to the white surface staining which may occur on materials containing cement or natural minerals, dried or cured in cold damp conditions (i.e. UK winter conditions).

Any affected surface can be safely left to weather or improved or treated, (the sole detrimental effect of efflorescence being aesthetic rather than structural).

Calcium carbonate, produced by the hydration process, is only slightly soluble, and the weathering process may therefore take many seasons, without treatment.

## Treatment Description

Application of diluted Hydrochloric acid on to the affected surface and the thorough washing and removal of the soluble chlorides, produced by the chemical reaction of the acid.

## Equipment

Any hot water pressure washer, garden spray (Killaspray 5 litre type), and access equipment for all areas requiring treatment.

## Materials

- (a) Copious supplies of clean tap water.
- (b) Brick cleaners containing 16% Hydrochloric acid solution (Cementone Beaver Brick and Patio cleaner are typical).

## Application General

The working day areas of application will be dictated by the skill of the operatives and weather conditions; where possible application on individual wall surfaces should be completed as one operation.

## Primary Application

- a) Using pressure washer set at cold, thoroughly soak all affected and adjoining areas. (Whole elevations to be treated, not solely individual efflorescence affected areas).
- (b) Leave until background is still damp but without surface water present.
- (c) If any area dries before application of the acid solution, re-wet and leave to go damp - do not apply acid solution to dry areas of the render.

## Second Application (Acid)

- (a) Dilute patio cleaner - one part cleaner : 5 parts water.
- (b) Using Killaspray set at large 'fan', apply to affected wall to effect total coverage but avoiding, where possible, diluted solution running down face of wall.
- (c) Before any possibility of drying of applied acid solution, final rinsing takes place, see below. (Working across and then fully down at approximately 2 metre working widths normally provides the best working arrangement.)

## Rinsing

- (a) With the pressure washer set at 50°C, immediately and thoroughly rinse off all areas where the solution was applied.
- (b) Keep a sufficient distance to avoid surface damage where highly powerful machines are employed.

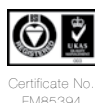
## Repeat (If Necessary)

It is the nature of efflorescence that when wet, it is difficult to see and if after drying, limebloom is still apparent, repeat entire operation until acceptable.

## Safety

- (a) Attention is drawn to any recommendations of the brick and patio cleaner manufacturer.
- (b) Consideration should be given to possible ingress of solution or water to windows or other openings, and all appropriate care and precautions observed.

If manufacturer's instructions are not followed closely, a satisfactory finish may not be achieved and Kilwaughter Chemical Co Ltd will accept no responsibility.



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