SOURCES OF EFFLORESCENCE

RESSICHEM®
adding life and value to your property

What is efflorescence?

Efflorescence is a crystalline deposit of alkaline salts. It is usually white in color & appears on the surface of masonry, concrete, stucco, plaster, concrete blocks, etc.

There are many sources for water-soluble salts with some salts more soluble than others. The movement of groundwater into building foundations & by capillary action, or wicking, upwards into masonry, stucco, or concrete, is very often the cause of efflorescence. In the case where soil conditions exhibit, precautions should be taken to preclude the passage of this water to the structure. Low absorption is the best assurance against efflorescence. Properly graded aggregates, low water- cement ratio, good compaction & proper curing practices will produce concrete of maximum density & low water absorption.

Removal of efflorescence.

There are several ways to take care efflorescence coming from masonry and concrete surfaces.

1. Mild Water Washing: If the wall is affected in a minimum way, the efflorescence can be washed ways simply by regular soap and water with a soft bristle long brush. Even despite the wash, if the efflorescence persists, there are several other ways to tackle the issue.

2. High Pressure Jet Wash: The efflorescence can also be washed away using a high-pressure jet wash. Industrial high-pressure cleaner is a high-pressure reciprocating plunger pump that uses high pressure water jet to remove mold, grime, dust, mud & dirt from surfaces and objects such as buildings, vehicles, & concrete road surfaces. A pressure washer is also known as power pressure washer.

3. Sand Blasting: Incase washing the surface is not effective, sand blasting of the surface can be done to remove surface efflorescence. Sandblasting is the operation of forcibly propelling a stream of abrasive material against a surface under high pressure to smooth a rough surface, roughen a smooth surface, shape a surface, or remove surface contaminants like efflorescence.

4. Acid Washing & Neutralizing: If treatments like washing & sand blasting are ineffective, an acid wash can be done to neutralize the efflorescence. The Products used in this case are **Ressi Acid Itch**, it opens the pours of the surface & allows the excess salts to come out. It is recommended to let the salts out initially for a few days before thoroughly washing the surface with a soft jet wash. Once the salts have been cleared with the jet wash, it is recommended to use **Ressi Neutralizer** (Acid neutralizer) over the surface. This will also allow some of the remaining salts to come out onto the surface. Once the surface has been neutralized, it is recommended to wash the surface again to make sure any traces of the chemicals on the surface have come off. Once a surface is stable, the protective treatment of **Silblock** Water Repellent Sealer can be done.

Application of Silblock Water Repellent sealer (On Top Surface)

After making the surface stable, it is recommended to apply **Silblock** Water repellent sealer over the surface. **Silblock** is an solvent free siloxane emulsion in water. The product is suitable as impregnating agent for masonry including highly alkaline surfaces. It demonstrates good penetration into a variety of absorbent mineral building materials. Please refer to the product datasheet for further information.

Addition of Silmix in Plaster (If replastering is being done)

If there is a need to replaster the surface damaged with efflorescence, it is recommended to include a combination of **Silmix** and **Ressi SBR 5850** into the plaster mix. It is recommended to include 1 liter each of **Silmix** and **Ressi SBR 5850** with each 50 KG bag of cement used in the activity. The addition of **Ressi SBR 5850** should ensure that there is less to no cracks on the surface & **Silmix** will ensure that the plaster itself is resistant to dampness hence ensuring that efflorescence will not re appear.

ریسیکیم®
مضبوطی اور پائیداری کے لئے
D-83, S.I.T.E., Industrial Area, Manghopir Road, Karachi - 75530, Pakistan
+92-21-32593800-02 +92-309-7772464
www.ressichem.com