

Efflorescence:

What is it? Efflorescence is a naturally occurring soluble salt that can form from all cement-based products. For example: On old brick buildings there are commonly white streaks on the walls. This is efflorescence that has come out of the mortar between the bricks.

What does it do? Efflorescence is harmless but it is a nuisance. Commonly, it is the number one culprit for "Light Grout". The soluble salt crystals will settle on the surface of the grout and sometimes with in the grout joint, giving the appearance of a lighter shade of grout than usual. It is most evident on dark grout, e.g. Light Chocolate, Mocha, Raven, etc.

Why does it occur? Efflorescence is a naturally occurring by-product of cement and can not be predicted or controlled. It is usually aggravated by excess water during the mixing of the grout and during the clean-up process after grouting. Efflorescence can occur from the grout, cement mortar, slabs, and in rare occasions from the tile. Normally, it will occur with a few days of grouting but may show up as long as 30 days later. Porcelain tiles or other non-absorptive tiles will also aggravate the situation. The reason that porcelain (non-absorptive tiles) will aggravate the situation is that it will not absorb or absorbs very little water from the grout causing the excess water in the grout to settle on the surface of the grout joint. When the excess water settles on the surface of the grout it will bring the soluble salts that cause efflorescence with it. Then the water dries and the salt crystals will form, giving the appearance of light grout.

How do I check for Efflorescence?

- (1) Is the grout light in color?
- (2) When the grout joint wetted with water, does the color return to the grout joint (maybe a little darker)?
- (3) When cleaned with a mild acid cleaner, does the grout turn darker?

If you answered yes to number (1) and at least one of the other two, then your light grout problem is most likely being caused by Efflorescence.

Does the time of year cause Efflorescence to occur more frequently? Yes, the problem does seem to occur more frequently during the spring and fall because the grout is usually installed during the warm day and then at night the temperature drops. Then the temperature drops this will cause the soluble salt to rise to the surface of the grout causing efflorescence.

How to prevent Efflorescence? Actually there is no way to prevent efflorescence but there are ways to reduce the chance of it occurring. (1) If installing Porcelain or a non-absorptive tile, use less than normal water during the mixing process of the grout. (2) Don't make the grout soupy. TEC's grout should never be able to pour freely from the bucket. Use the recommended amount of water. (3) Use the least amount of water needed to clean up after grouting. (4) The number one item that can be used to help to prevent Efflorescence is by adding the grout additive to the grout instead of water. The grout additive should not be used when the tile is a limestone, travertine, or a marble.

How it to get rid of Efflorescence? Efflorescence can be removed with a dilute acid wash. The procedure for acid washing should be to pre-wet (dampen) the grout and then scrub the floor with a stiff brush that will not damage the surface of the tile. After scrubbing the floor with the dilute acid solution the floor should be thoroughly rinsed with clean water and then allowed to dry. Sometime the floor will have to be acid washed multiple times to remove all of the efflorescence. Follow the manufactures recommendation for using their acid based cleaning solution. TEC's acid cleaner is called LikeNewTM.

Can Efflorescence return after removing? Yes, even though it is rare, efflorescence can reoccur after it has been removed from the grout surface. Each time it returns, it should be less than before.

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