

White buildup under crawlspace

Last Updated: Friday, March 29th, 2013, Created: Sunday, January 14th, 2001

I got Dino from North York, Ontario on the phone to talk about his crawlspace. He has a split level home and below the upper split is a crawlspace with a concrete floor. He never seemed to have a problem until he decided to finish this space and use it for storage. He put vinyl tiles on the floor, and this year they are lifting up with a sort of white crust under the lifting tiles. What is happening? The white stuff is called efflorescence, and it is actually salt. Salt is found naturally in all concrete, and when concrete is saturated with water the salt will dissolve and travel with the moisture. We're not talking about a leak or any flowing water here. We are talking about saturated moisture migration from wet soil outdoors, through the concrete to the inside face of the concrete, where the water evaporates. If the salt is coming with that moisture, it is left on, or just behind, the surface. When you box this in with paint or tiles, the salt can build up enough to push off both paint and tiles. Sometimes it even pushes off the face of the concrete or brick and we call that spalling. The salt on the surface is not a hazard, just a very big bother. The solution is to stop the moisture migration. I would suggest first looking at landscaping and rain gutters to get water away from the area. If that doesn't work, you may have to look at moisture-proofing the outside of the foundation wall and improving or installing perimeter drains. If this is all caused by a high water table, you will need to install a sump pump to keep the water away from the floor. Once the source of the problem is blocked, use muriatic acid (gloves, goggles etc. please) to clean off the salt and then you can put any finish you want on the concrete floor.

Keywords:

Damage, Moisture, Efflorescence, Environmental