

High Moisture Adhesives for Resilient Flooring Installations

ACRYLIC AND LATEX ADHESIVES

The current industry rage is the use of 'High Moisture' adhesives (HMA) to bond resilient flooring to a high RH % concrete substrate. This technical bulletin will clarify Bostik/XL Brand's position on 'High Moisture' adhesives:

HMA's are adhesives that will continue to perform under the harshest conditions of concrete substrate moisture and alkalinity; some cases up to 99% RH and 12 pH. What this means is the adhesive will still provide bond strength in the presence of high moisture and high pH. What HM adhesives WILL NOT do is provide moisture protection for the flooring installed over them. Moisture vapor migrating up through a slab will transmit through the adhesive and make contact with the resilient flooring. If the resilient flooring is not rated for high moisture environments, there could be a flooring performance issue. Even if the flooring IS rated for high moisture environments there still could be issues.

Listed below are a few problem scenarios that we have observed:

- Vinyl tile installed with HMA's experiences efflorescence migrating up from the concrete substrate at the perimeter of the tile.
- Vinyl plank lifting at the perimeter of the plank (sides and ends). When planks are lifted to observe below a ridge of alkalinity (salts) was found at all joints. Moisture vapor rises through the slab, condenses when it meets the flooring, travels to the flooring edge and re-vaporizes leaving the salts behind.
- Liquid is observed at the tile or plank joints. It is found to be liquid water that has condensed under the flooring. The flooring is still adhered to the substrate and flat.

In all three scenarios, the adhesive is doing its job, yet in all three instances there is a claim issue. HMA's do not provide a magical cure that solves substrate moisture issues.

When high moisture slabs are encountered, dealers and installers should take care when deciding how to solve the issue on a case by case basis.

HMA's are high RH % moisture tolerant but they are not a substitute for a moisture vapor barrier/sealer. Do not confuse these products with film forming reactive adhesives used for flooring installations that can provide moisture protection when used properly and coat 100% of the flooring backing when installed.

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