

10 Reasons to Choose KIM Admixture Over Waterproofing Membrane Systems

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Concrete is a porous material which has the ability to absorb water and water-borne contaminants. Leaving the concrete exposed to the elements causes deterioration, and reduces the durability and lifetime of the structure.

So, to protect your structure and ensure it has a long, serviceable life, you have to waterproof the concrete. The question is how?

There are two main ways to classify concrete waterproofing systems based on their application method: surface-applied concrete waterproofing systems (i.e. coatings, sheet membranes, expanding clays) and integral systems (from within the concrete itself). Although advancements have been made in surface-applied systems such as sheet membranes, the failures and limitations of these systems are still all too common and costly.

It's becoming clear to many leaders involved in the construction industry that waterproofing concrete from the inside out is the best choice. Commonly called integral systems, these are densifiers, water repellents and reactive/crystalline products that are added to new concrete at the batching plant or on-site and react chemically within the concrete.

Some integral systems simply increase the density of the concrete or increase its ability to repel water. These admixtures only "dampproof" the concrete, rather than waterproof it. But resisting liquid under hydrostatic pressure calls for a crystalline admixture made up of a distinctive blend of cementitious and proprietary chemicals – specially formulated by Kryton.

Kryton's KIM® – Krystol Internal Membrane™ – actually uses available water in a chemical reaction within the concrete to form crystals until all pores are blocked and no water can penetrate the concrete.



Here are 10 reasons why Kryton's KIM admixture should be your number one choice:

1. KIM eliminates the complications of blindsided waterproofing applications. KIM works within the concrete matrix so you do not have to over-excavate for membrane placement or risk membrane debonding from opposite-side water pressure.
2. Membranes are usually inaccessible for repairs after installation, but KIM-treated concrete contains chemicals that lie dormant within the concrete structure. If a concrete crack forms, the influx of water causes more crystals to grow, re-blocking the passage against water and water-borne contaminants.
3. Using the KIM admixture system speeds up the construction schedule and decreases labour costs. KIM combines the waterproofing step with the placing of concrete which means there is no labor-intensive, costly and time-consuming surface preparation, installation, sealing and protecting.
4. KIM will decrease your maintenance costs and increase the durability of your building. Because the crystals grow throughout the concrete, the waterproofing is impervious to physical damage and deterioration. It is permanent.



5. Placing KIM-treated concrete is as easy as placing regular concrete. Unlike installing membranes – which calls for careful finishing, temperature control, clean and dry concrete, and dependable surface adhesion – good quality placing, finishing and curing are all that is needed.
6. Avoid costly application mistakes. Even the simplest membrane systems require some level of skilled application...and even the most dedicated tradesperson can make mistakes when it comes to applying them. KIM is not subject to stringent workmanship requirements. In fact, it requires no application labor at all.

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7. KIM-treated concrete lasts, unlike membranes, which are at their best the day they are applied. It will not debond or wear away. In fact, in the presence of moisture, KIM concrete becomes stronger over time, protecting reinforcing steel from corrosion and preventing spalling, cracking and deterioration.
8. KIM concrete is great for complex architectural designs. Without concern for the limitations of membrane application, you are free to be creative – unencumbered by traditional limitations of curved surfaces, corners and concrete finishing.
9. KIM admixture requires no surface preparation. It does not require adhesives or smooth surfaces and can be placed in damp/wet conditions. In fact, a saturated surface is one of the few preparation requirements of the surface applied system.

And the number 10 reason to use Krystol Internal Membrane (KIM)? It's a green solution! Not only is it best for your job site, it's best for the earth.

10. KIM-treated concrete is environmentally friendly and sustainable, unlike membranes that are made from petroleum or other environmentally harmful materials. KIM concrete is LEED friendly, contains no volatile organic compounds (VOCs) and when the time comes for demolition, KIM concrete can be completely recycled.