CONCRETE WATERPROOFING FOR
NEW CONSTRUCTION

Krystol Internal Membrane™ (KIM)®

Krystol Internal Membrane or KIM is an integral crystalline concrete waterproofing admixture. When combined with water, KIM's proprietary chemicals react to form millions of needle-like crystals. These crystals grow and fill the capillary pores and micro-cracks in the concrete, blocking the flow of water. As time passes and stresses form new cracks, any incoming moisture causes the crystals to reactivate – ensuring continuous waterproofing over the years.

KIM is used in place of externally applied surface membranes to protect against moisture transmission, chemical attack and the corrosion of reinforcing steel.

KIM

- KIM is a permeability reducing admixture for hydrostatic conditions (PRAH)
- Replaces unreliable exterior membranes, liners and coatings
- Easily added directly to ready-mix truck or a batch plant
- Self-Seals hairline cracks up to 0.5 mm
- Reactivates in the presence of moisture
- Effective against hydrostatic pressure up to 140 m (460 ft.) of head
- Waterproofs from any direction (i.e. positive or negative side)
- Impervious to physical damage and deterioration
- Safe for contact with potable water, certified by NSF to NSF/ANSI Standard 61
- Reduces concrete shrinking and cracking
- Provides excellent resistance to waterborne chemicals such as sulphates, chlorides, and acids
- Compatible with self-compacting concrete (SCC)

Packaging

25kg (55 lbs) resealable pails

Mixer-ready bags in custom sizes to match your mix design

KEY BENEFITS

- Permanently waterproofs concrete
- Protects concrete and reinforcement from harsh environments
- Increases the durability and lifespan of concrete
- Lowers the cost of waterproofing by up to 40%
- Essential for blind-wall and shotcrete applications

KIM is the only admixture that demonstrates the performance of a hydrophilic crystalline PRAH. KIM provides the highest level of water resistance, self-sealing and field proven longevity, which proves its effectiveness as a PRAH.

PERMEABILITY REDUCING ADMIXTURES

The most recent version of ACI 212.3R-10: Report on Chemical Admixtures for Concrete includes a new chapter specifically about permeability reducing admixtures (PRA). PRAs can be divided into two categories:

- PRAN – Permeability Reducing Admixture for Non-Hydrostatic Conditions
- PRAH – Permeability Reducing Admixture for Hydrostatic Conditions

Why is KIM the only true PRAH?:

1. KIM has the highest level of water resistance when testing using DIN 1048-5 (permeability test).
2. KIM is the only admixture to independently demonstrate self-sealing properties.
3. KIM has the longest history of being used in the most demanding waterproofing projects.

For more detailed information, see ACI 212.3R-10: Report on Chemical Admixtures for Concrete.

The latest edition of the Portland Cement Association's Design and Control of Concrete Mixtures, 15th edition has also adopted the PRA terminology to describe concrete admixtures.