Deep Seal

Environmentally Safe

AS A VAPOR TRANSMISSION RESTRICTION



You may ask, how does concrete breath yet prevent transmission of substances such as radon gas, etc., following an application of *DEEP SEAL*.

Part of the answer lies in the nature of gas transmission in *DEEP SEAL* treated concrete. Some gases are soluble. Gases that have a low molecular weight are more soluble than gases with a high molecular weight. Molecular weight is not the only property that determines solubility. The way the electronic configuration of the gas combines with the electronic configuration of the residual *DEEP SEAL* subsurface barrier created inside the treated concrete, also determines solubility.

As a compatible gas permeates the treated concrete, and subsequently the *DEEP SEAL* precipitated waterproofing subsurface barrier created inside concrete, it dissolves and emerges as a gas, re-dissolves and re-emerges, dependant upon the capillary pores (interstitial pores) and the gel pores (discontinuities) that may remain internally accessible to the gas. Oxygen, with an atomic number of eight and an atomic weight of 16, has a low enough molecular weight to diffuse, to dissolve and to move under partial pressure. At any given temperature and all of its molecules have the same kinetic energy, the kinetic energy being the energy of motion. A large molecule will have a high mass component of energy and a low velocity component. A small molecule will have a high velocity component and a low mass component. This will affect reaction kinetics and thus solubility. It will also determine solubility at the surface and mobility through the substance media, in this case, *DEEP SEAL* treated concrete.

CONCLUSION: Radon, methane, and other harmful gases that are "heavier than air" cannot pass through concrete that has been treated with *DEEP SEAL*, which forms a subsurface colloidal liquid precipitate barrier inside the concrete. Furthermore, surface scratches or gouges that may occur after a DEEP SEAL treatment will not compromise or affect *DEEP SEALs* waterproofing barrier, due to DEEP SEALs ability to deeply penetrate and internally provide the barrier below the surface, and in the concretes matrix.



For all of your masonry and concrete needs

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