

HYDRAMIX® FOR ALL POOL FINISHES

THE HIGHEST QUALITY HYDRATION AVAILABLE

Eliminating Hydration Issues, One Pool Finish at a Time

HydraMix added to portland cement Pool Finish “mix water” will convert conventional mix designs to high-performance mix designs, generating production of the pool finish that is extraordinarily hard, dense and impermeable. **HydraMix** causes the pool finish enhancement in several ways, beginning with improvement of hydrolysis' actions and reactions, by significantly favorably enhancing hydration's by product quality, i.e., **calcium hydroxide**, while also, significantly increasing the already-included Portland cement utilization. The resultant pool finish permeability / durability values become tremendously improved while **HydraMix** causes the production of very fine-textured, extremely homogenous, aggregate zone paste, and bulk paste, finally creating smaller more uniform capillary and gel pore sizes, with virtually no **plastic particle separation**. **HydraMix** utilization in batching portland cement pool finish significantly reduces finish's total air-void content as it greatly improves its workability, and significantly **lowers** the **loss** of water volumes. **HydraMix**, in any pool finish mix provides the mix with the ability to initially introduce portland cement to mix water without the usual abruptly violent actions and reactions which creates a cement potency loss, normally ascribable to water dilution and hydrolysis, which will create poor quality early produced cement paste, paste which initially coats the finish aggregates. **HydraMix** utilization works to ensure early, initially produced cement paste (aggregate zone paste), immediately coating the concrete's aggregates, and is of the utmost attainable quality, ultimately and significantly improving concrete's paste-aggregate zone and paste-to-aggregate bond quality, virtually eliminating potential for micro cracks. Also, ultimately increasing the pool finish's PSI and flexural strength. **HydraMix** enhanced, hydration by-products', i.e., **calcium hydroxide** quality, also sets the stage for the finish to receive a significantly greater, more efficient, calcium lamination of C-S-H's silicate polymer particles, strands, and/or chains, an action also causing reduction in ultimate volume of unutilized calcium hydroxide, left in the finish, which may later interfere with the finishes ability to retain its integrity, due to potential detrimental internal chemical reactions, such as, delayed ettringite formation. **HydraMix's** ingredients prompt prolific formation, extension, and branching of silicate polymer particles, strands, and/or chains, vital constituents in C-S-H's tobermorite gel component, concrete's main strength component. Utilization of **HydraMix**, in a pool finish mix results in the production of significantly less permeable, and a more durable finish, which are major factors that are normally associated with the extension of the finish's useful lifespan. Also, **HydraMix** utilization will create, to some varying degree, a (6-12%) increase of the utilization of each portland cement particle in the mix. This attribute in turn causes a significantly greater reduction in the sizes of left-over particle cores of each portland cement particle ultimately left in the finish to act as aggregates. The various, smaller than normal particle core sizes, make these unique particles an extremely valuable filler aggregate, sized somewhere between sand and normal cement particle sizes, which ultimately and integrally provides excellent filler benefits. Benefits similar to those of silica fume, resulting in denser, more impermeable, and significantly more durable pool finish that has greater resistance to acid and chemical contaminate ingress, giving the pool finish a “buffer zone” of protection.