

GEOPOLYMER MORTAR SOLUTIONS

What is a Geopolymer?



GeoSpray is a geopolymer – but not a Plastic

Not A Plastic

When you see the term geopolymer for the first time, many people immediately assume the material will be a plastic like HDPE or Polyester. While it is true plastics are polymers, not all polymers are plastics. So, instead of thinking of the materials you find in plastic bottles or food storage containers you should picture a material that behaves like cement.



GeoSpray mortar has the look and feel of standard cement mortars when it is begin processed and applied

The Best of Cement

GeoSpray geopolymer mortar has the look and feel of most standard cements. The geopolymer powder containing pozzolans is mixed directly with water to form a mortar just like standard cement materials. GeoSpray mortar has been specially formulated for centrifugal casting of large diameter pipes, but processability and workability are similar to what you might expect from a cement mortar.

One can think of GeoSpray mortar as an advanced cement. Compressive, tensile and flexural properties of GeoSpray mortar have been engineered to meet or exceed those you would expect from a standard cement formulation.



GeoSpray mortar has the chemical structure like a natural stone, giving it benefits that traditional cement materials cannot deliver

Chemistry of Stone

The major advantage of a geopolymer over typical cement mortars is that a geopolymer has the chemistry of an engineered stone. The Aluminosilicate network that forms the chemical structure of GeoSpray mortar is similar to the chemical structure found in natural stone, such as zeolites or quartz.

This stone-like chemistry is different than the hydration chemistry that is present in standard portland and calcium aluminate cements, and creates a distinct advantage in chemical resistance. Additionally, unlike standard cement mortar, GeoSpray mortar continues to react with itself for decades, building additional strength and enhancing its service life expectancy.



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