

Duracoat®

Duracoat is an ultra-high performance concrete composite material with organic fibers, formulated for customized spray-on liner applications. It is sprayable and pumpable with properties adaptable to the demands of each application. Available in a 3 component premix: pre-blended 50 lb bags, liquid admixture and bagged fiber.

DESCRIPTION

Duracoat® is a pumpable/sprayable fiber reinforced pre-blended concrete mix composed mainly of highly specific cement, silica fume, silica flour and silica sand.

APPLICATION

The Duracoat® batch mix is designed to adhere to properly prepared existing vertical substrates, clean, dry and free of loose material.

Minimum thickness: ½" to 1"

Spray Hose diameter: 1" to 3"

Equipment: must be cleaned and dried before each application.

Water: must be clean and potable.

STRENGTH

The tight gradation and specification of select materials contributes to higher than normal concrete strengths.

Compressive (post-cure) 15,000–20,000 PSI

Flexural (post-cure) 2,000–3,000 PSI

DURABILITY

The reduced water to cement proportions of Duracoat® lowers permeability and provides an increased resistance against freeze thaw action and corrosion.

OTHER PROPERTIES

Density: 2.2 to 2.4 SG

RHEOLOGY

Plastic to high slump flow:

Flow (Abrams cone) 8–28 in.

Flow (ASTM shock table) 6–9 in.

COMPOSITION

Portland Cement • Silica Fume • Silica Sand • Quartz Flour

PRE-MIX

Duracoat® can be mixed in a normal industrial high shear, high torque concrete mixer, tuned for fine-sized materials. Use of a pre-mix simplifies the batching sequence and length of mixing time.

PLACING

Duracoat® is adaptable to most placing techniques with a daily low temperature above freezing: spray-on, cast-in-place, pumping, injection, extrusion, etc.

CURING

Normal curing at 70 degrees Fahrenheit with anti dehydrate or fine water mist surface treatment for 24 to 72 hours.

THERMAL TREATMENT

140 degrees Fahrenheit @ 100% Relative Humidity for 72 hours.

MOLDING

Texture: The fineness of Duracoat® raw materials and fluidity of the mix provides a material with the ability to replicate the micro-texture of the form surface or special mold textures. Spray-on surface textures are of high quality uniform appearance.

COLORS

White or light grey; also available in a variety of solid or blended colors, upon request.

STORAGE

Duracoat® is reactive with water. Therefore, it is recommended that Duracoat® is not place or stored in direct contact with the ground.

Exposure to water or high humidity environments will reduce material performance. Protect from moisture.