

# TECHNICAL DATA SHEET



## UHPC

Trinic White UHPC Additive

**EASY TO MIX, POURABLE, & LOW-SHRINKING  
ULTRA HIGH PERFORMANCE CONCRETE ADDITIVE**

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## DESCRIPTION

Trinic White UHPC Additive is designed to offer an economical alternative for the production of Ultra High Performance Concrete. Customers add their own sand and cement and save on material costs and shipping costs. Trinic UHPC additive contains everything except sand and cement to create a pourable ultra high performance, low-shrinking concrete. It consists of special additives, and selected fillers supplied as a just add sand, cement, water and fiber package. Trinic UHPC Additive exceeds the performance of conventional high performance concretes with very high compressive and flexural strengths with very low permeability, and excellent freeze / thaw durability. Trinic UHPC additive is designed to be very easy to mix without requiring specialized equipment or procedures to have success. Available in gray or white.

## APPLICATIONS

Trinic White UHPC additive uses include:

Concrete piles, fender systems and marine environments, sea walls, high strength prestressed bridge beams, precast bridge deck closure joints, bridge deck overlays, blast mitigation walls, building cladding panels, wind turbine towers, tunnel segments and liners, and architectural elements.

## TYPICAL MATERIAL PROPERTIES

- Density: 150 lb/ft<sup>3</sup> +-
- Flow: 7 to 10 inches
- Compressive Strength (dependent on sand and cement used):
  - 1 Day  $\geq$  10,000 PSI (69 MPA)
  - 7 Day  $\geq$  16,000 PSI (110 MPA)
  - 28 Day  $\geq$  22,000 PSI (151 MPA)
- Strength gain can be manipulated though the use of accelerators and or curing techniques
- Recommended Sand:  
40 to 60 mesh, sound, clean silica sand will result in the highest compressive results.  
Please contact Trinic with questions.
- Recommended Cement:  
Portland type I or type II, white or gray. Different cements will have differing water demands.

## **MIXING INSTRUCTION**

Start with the following ratios:

Trinic White UHPC Additive: 24%

Portland Cement: 38%

Sand: 38%

Add water at a rate of 7.4-8% of total dry weight. Ice is recommended as a direct replacement for batch water when the temperature of the batch is anticipated to reach 75°F or more during batching and casting operations. An accelerating admixture may be used when the batch and curing temperatures are anticipated to be below 60°F. Please consult with a Trinic representative for your individual project.

Turbine type concrete mixer:

Add all of the dry ingredients, start the mixer, add 90% of the water / ice, mix until the material is wetted out (typically about 2 minutes) mix for an additional 3 minutes, add the remainder of the water / ice, mix for an additional 5 minutes for a total mixing time of about 10 minutes.

Ready mix truck:

Please contact Trinic for recommendations.

Do not add water above the recommended limit.

## **PLACING**

Trinic UHPC self-consolidating version is free flowing. All forms used should be watertight. Trinic UHPC can be cast using a pump, bucket, or wheelbarrow. Mix should be used within 30 minutes of mixing. Surfaces should be immediately covered to prevent surface moisture loss.

## **CLEANING**

Tools and equipment must be cleaned with water before the material starts setting.

## **COMPONENTS, PACKAGING**

45 lb bag

Super sacks available upon request

## **COVERAGE/YIELD**

138.3 lbs dry material = 1 cf. of wet mix

**SHELF LIFE**

1 Year

**STORAGE**

All materials should be stored in a dry environment and / or be thoroughly covered to prevent moisture ingress, seepage, corrosion, and UV exposure. Materials should be stored between 40-95°F (4-35°C) and conditioned to 65-75°F (18-24°C) prior to use for optimum performance.

**DISPOSAL**

Follow all federal, state, and local regulations when disposing of this product.

**LIMITATIONS**

No known limitations if used properly.

**WARRANTY**

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replacement of product (if defective), at manufacturer / option. Trinic products shall not be liable for cost of labor or direct and/or incidental consequential damages.

**SAFETY DATA SHEET**

SDS for all Trinic products can be found on our website or by contacting us directly.