TECHNICAL DATA SHEET

UHPC

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

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DESCRIPTION

Trinic UHPC pourable is an ultra high performance, low-shrinking concrete consisting of special cements, additives, and selected aggregates supplied as a just add water and fiber premix. Trinic UHPC 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 is designed to be very easy to mix without requiring specialized equipment or procedures to have success. Available in gray or white.

APPLICATIONS

Trinic UHPC 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

- Trinic UHPC is available in gray or white for architectural applications (can be color matched for any project)
- Density: 150 - 160 lb/ft3
- Flow: 7 to 10 inches
- Compressive Strength:
  - 1 Day ≥ 10,000 PSI (69 MPA)
  - 7 Day ≥ 16,000 PSI (110 MPA)
  - 28 Day ≥ 22,000 PSI (151 MPA)
- Strength gain can be manipulated though the use of accelerators and or curing techniques

MIXING INSTRUCTION

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 40-95ºF (4-35ºC) and conditioned to 65-75ºF (18-24ºC) 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 / seller's 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.

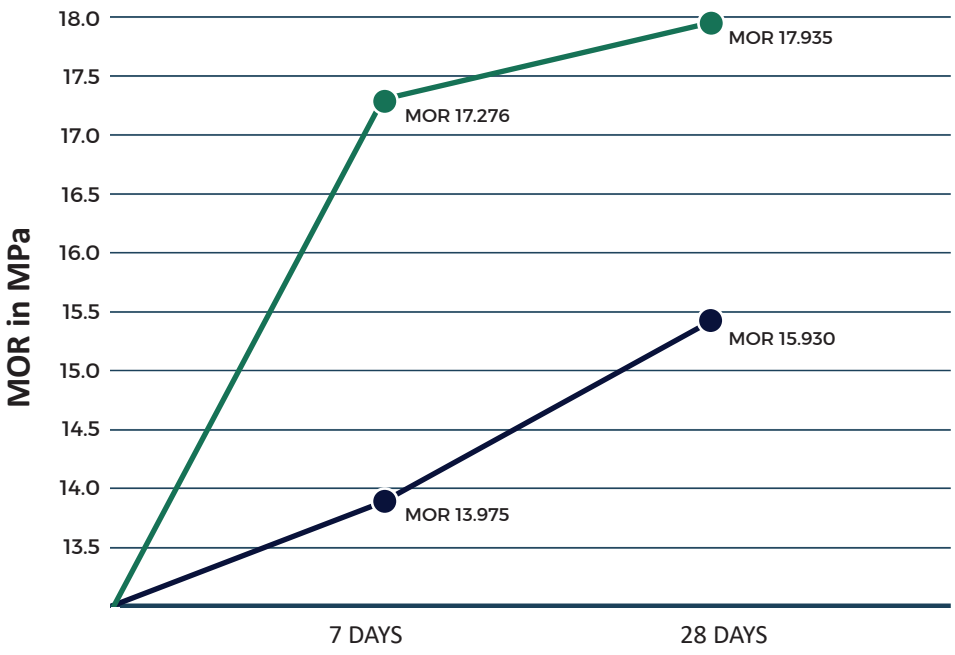
Standardized tests for TRINIC White UHPC premix

Compression

Standardized test samples cast using TRINIC White UHPC premix, achieve an average compressive strength of:

132MPa at 7 days
153MPa at 28 days
174MPa at 56 days

Flexural

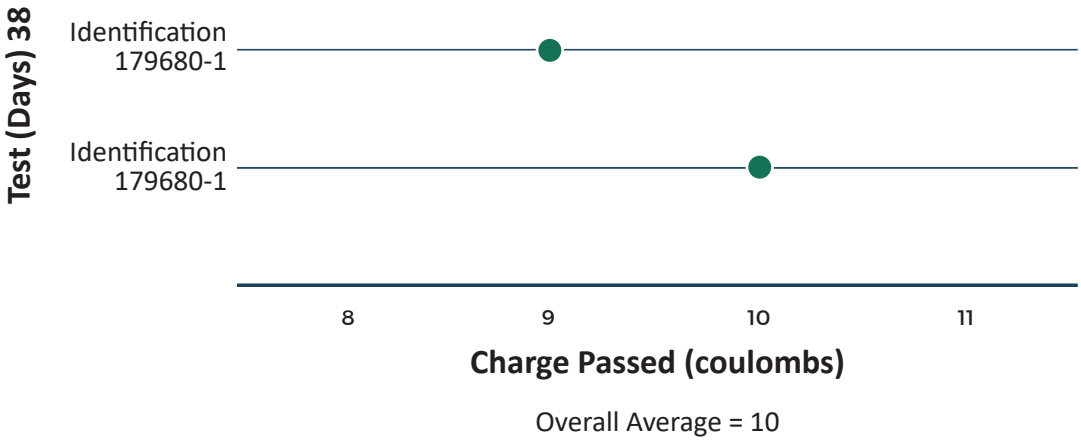


Test samples cast using TRINIC White UHPC premix including:

- UHPC 3% AR Glass Fiber
- UHPC 1.5% RFD400 PVA Fiber

Laboratory No. 10-179680 - Mix UHPC White - cast 01/13/2020

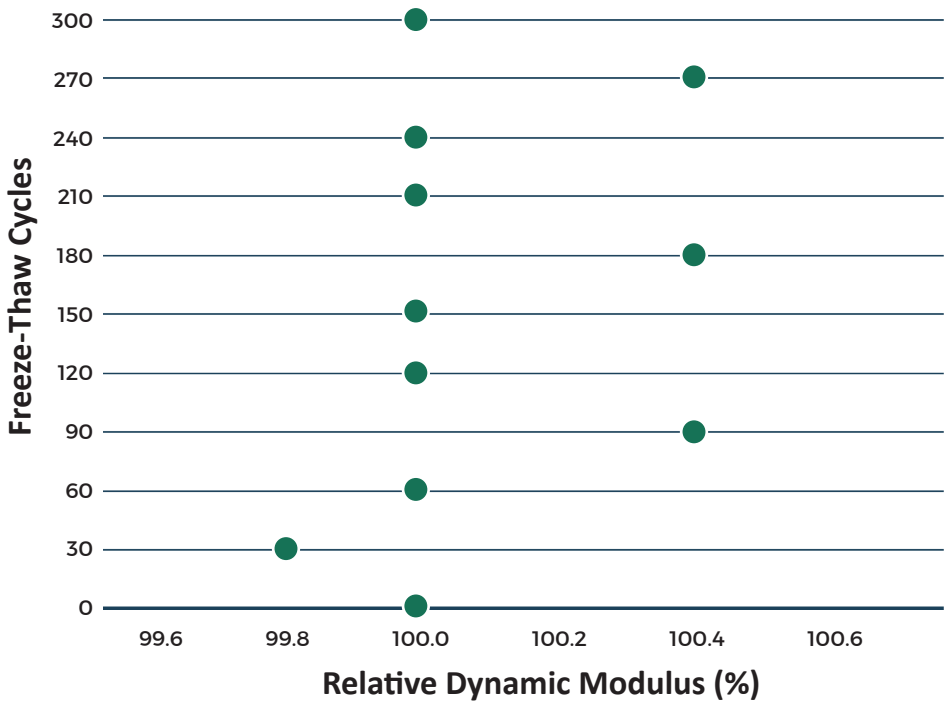
ASTM C1202 - Rapid Chloride Permeability



Overall Average = 10

Laboratory No. 10-179678 - Trinic Mix UHPC White - cast 01/13/2020

ASTM C666 - Freeze/Thaw Durability of Concrete



- Values are the average of two specimens. -