



PRODUCT TECHNICAL DATA SHEET

ONYX CRETE TC

Advanced Coating Systems

HEAVY DUTY POLYURETHANE CEMENT TOP COAT

GENERAL PRODUCT DESCRIPTION

ONYX Crete TC is a three-component polyurethane concrete floor system. Its unique formulation makes it ideal for many harsh environmental conditions. It is especially suited to handle high temperature sanitary wash down and steam where thermal cycling is present. In addition, ONYX Crete TC has excellent chemical resistance. It is applied as a top coat over the ONYX Crete SL base coat. ONYX Crete TC is USDA accepted for use in federally inspected food facilities.

ADVANTAGES

- Resistant to Thermal Shock
- -50 to 250 Degrees F Temperature Range
- Ideal for CIP (Cleaning-In-Place) applications
- Handles Severe Impact Conditions
- Skid-Resistant Surface
- Seamless Flooring System
- Essentially Odorless
- Withstands Heavy Forklift Traffic
- Chemical Resistant
- Abrasion Resistant

PRODUCT DATA

Volumetric Ratio: 1 To 1
 V.o.c.: 0 G/L
 Application Temp: 65-90°F And 5° Above Dew Pt.
 Thinning: Not Required
 Pot Life: 6-8 Minutes
 Working Time: 10-12 Minutes
 Cure Time: 8-10 Hours (Walking)
 24 Hours (Light To Medium Traffic)
 48 Hours (Heavy Traffic)
 Shelf Life: 6 Months
 Usda Food And Beverage: Meets Requirements

Cure time, pot life, and working time are based on a slab temperature of 70-75 F°, and will change accordingly as temperature changes.

PACKAGING

ONYX Crete TC is available in the following kit sizes:

	Part A	Part B	Part C
2 Gallon Kit	1 gal.	1 gal.	1 Bag
10 Gallon Kit	5 gal.	5 gal.	5 Bags

APPLICATIONS

- Food Processing
- Beverage Plants
- Dairies
- Bakeries
- Freezers and Cold Storage
- Fryer Lines
- Meat Packing and Poultry
- Commercial Kitchens
- Ovens
- Wash Downs
- Wineries
- Breweries"

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	8,200 psi	ASTM C 579
Flexural Strength	2,375 psi	ASTM C 580
Tensile Strength	920 psi	ASTM D 307
Bond to Concrete	350 psi concrete fails at this point	ASTM D 4541
Coefficient of Thermal Expansion	<- 12.6 X 10	ASTM C 531
Water Absorption	.10% maximum	ASTM D 413
Linear Shrinkage	.20% maximum	ASTM C 531
Impact Resistance	16 ft. lb. - no failure	Mil-D-3134H
Anti-Microbial	Passes	G-21
Coefficient of Friction	Passes	ASTM D 2047
Modulus of Elasticity	1.8 X 10	ASTM C 580
Temperature Rating	230°F	

CHEMICAL RESISTANCE

Acetic Acid 30%	R	Hydrochloric Acid 37%	R
Ethanol	R	Nitric Acid 30%	SS
Alcohol, Isopropyl	SS	Phosphoric Acid	SS
Aluminum Hydroxide	R	Skydrol R	R
Citric Acid	R	Sodium Bisulfate	R
Copper Chloride	R	Sodium Chloride	R
Diesel	R	Sodium Hydroxide 50%	R
Ferric Acid	R	Sulfuric Acid 50%	R

Note: The above guide is based on 7 days exposure of the listed chemical at 72 degrees F (22 degrees C)
 Key: R = Recommended, SS = Splash and Spill, NR = Not Recommended. Above chart

CONCRETE PREPARATION

Before the coating is applied, the concrete must be:

- Clean – Contaminants removed
- Profiled – Surface mechanically prepared
- Sound – Cracks repaired

Mechanical methods are required for preparing concrete prior to coating application. Shot-blasting, diamond grinding, scarifying, and scabbling are all acceptable methods. The concrete profile should be a minimum of a CSP 5.

MIXING

The standard mix ratio of ONYX Crete TC is, 1 gallon of A, to 1 gallon of B, to 1 bag (38 lbs.) of Part C. Mix this with a drill and jiffler mixer.

1. In an empty 6 gallon bucket (5-gallon buckets do not leave much room for the mix), pour in a gallon of Part A and a gallon of Part B. If pigment is on the side, add 8 oz. of pigment. Mix with jiffler mixer for 30-45 seconds until uniform.
2. Add 1 bag of Part C (12 lbs.) and mix with jiffler for another 20 seconds.
3. To remove lumps from the material by using a strainer in a clean, dry bucket, and pour the mix into it, filtering the resin. Then immediately apply onto the ONYX Crete SL broadcasted surface

APPLICATION PROCESS

ONYX Crete TC is best applied with a standard squeegee. After mixing, immediately dump all of the material out of the bucket and onto the properly prepared concrete.

1. Using a chip brush or weenie roller, cut into the edge of the perimeter and tight small spaces, coating it with the resin.
2. Use a 18" wide, 3/8" nap, non-shedding roller to roll out the resin. The coverage rate should approximately be approximately 160-200 Sq Ft per 2-gal kit (or 80-100 Sq Ft per gallon) depending on the desired texture and the sand's grit."
3. After backrolling (north to south) the coating, come back within 3-5 minutes and begin to crossroll (east to west). Keep a wet edge no more than 1 foot for the application.
4. For a high gloss or matte finish, with better color stability and improved stain resistance, apply a coat of the 2K WB CRU polyurethane finish.
- 5 The slip-resistant surface will vary depending on the grit

size of the aggregate used in the final broadcast.

COVE MIX

An ONYX Crete cove base can be achieved through mixing 1 quart of Part A and 1 quart of Part B. Mix for 20 seconds since it is a smaller mix. Then add 1 quart of the ONYX Crete TC (top coat) Part C component, which comes in a 12 lb. bag. Mix for another 20 seconds. Use some of this material to brush the base as a primer. To the remainder, add and mix in about 1 to 1.5 gallons of 30 grit or finer sand. Adjust per conditions. Material should clump in a glove hand and leave only a little sand on your glove when dropped. Trowel mix on a vertical surface, creating a radius.

COLOR SELECTION

Refer to the ONYX Crete Color Chart to see available standard colors. Other colors are available at an additional charge.

CLEANUP

ONYX Crete TC while in a liquid state may be cleaned up with water and degreaser. Otherwise a strong solvent may be required while ONYX Crete TC is setting up.

WARRANTY

ONYX products are warranted for 1 year after date of manufacture. Please refer to the ONYX Limited Material Warranty for additional clarification.

SAFETY

Consult ONYX Crete TC safety data sheet. Avoid ONYX Crete TC contact with eyes and skin. Always wear protective eyewear, clothing, and gloves. Safety always comes first.

MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.

PRODUCT LIMITATIONS

Always read the ONYX PRODUCT LIMITATION GUIDELINES