



CastorCrete® RT-CQ

System Description

CastorCrete RT-CQ is a heavy-duty gauge-rake and trowel applied cementitious polyurethane mortar that is designed to protect and/or resurface concrete. It can withstand aggressive physical exposure to heavy duty abrasion and impact, thermal shock and thermal cycling, chemical resistance and medium traffic forklift traffic. CastorCrete RT-CQ features a silica sand broadcast finish and can be grout coated and top coated with a variety of products depending on the end use environment. Typical installation thicknesses between 1/4 inch (6.35 mm) and 5/16 inch (9.5 mm).

System Uses

CastorCrete RT-CQ is an aesthetically pleasing medium duty flooring system that is designed for commercial kitchens, food and beverage processing, pharmaceutical, healthcare and research facilities, vivarium and animal holding and other wet and dry processing areas. CastorCrete RT-CQ is zero VOC to extremely low VOC depending on the required top coat.

Features and Benefits

- Aesthetically Pleasing
- Zero VOC urethane cement slurry mortar
- Fast Installation
- Moisture Tolerant
- Thermal Shock Resistant
- Impact and Abrasion Resistant
- Chemical Resistant to Organic and Inorganic Acids, Salts, Alkalis and Amines
- UV Resistant Top Coats
- Superior Life Cycle Advantages
- Qualifies for LEED projects

Colors

CastorCrete RT-CQ colored quartz aggregate are available in 9 solid colors, 14 blended and infinite custom blends.

Concrete Moisture

ASTM F1869 Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride, maximum 10 pounds (4.54 kg) per 1,000 sq. ft. (92.9 sq. meters) per 24 hours and ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes, maximum Relative Humidity of 85%.

Surface Preparation

Concrete must be sound, clean, dry and profiled. Refer to the CastorCrete RT-CQ application instructions for more detailed surface preparation instructions.

Cure Rate

Will vary depending on material placed over the CastorCrete RT.

Products

- CastorCrete RT
- Colored Quartz
- Epoxy 400
- Epoxy 600
- Polyurea 5100

Physical Properties

Compressive Strength (ASTM C579)	8,500 psi
Tensile Strength (ASTM C307)	1,400 psi
Flexural Strength (ASTM C580)	2,700 psi
Hardness, Shore D (ASTM D2240)	85-90
Impact Resistance (ASTM D2794)	160
Concrete Thermal Compatibility (ASTM C884)	Passes
Coefficient of Thermal Expansion (ASTM C531)	1.1 X 10 ⁻⁵
Flammability (ASTM D635)	Self Extinguishing
Abrasion Resistance (ASTM C501)	0.32gm loss, (CS-17, 1,000 gr., 1,000 cycles)
Coefficient of Friction Wet Surface (ANSI/NFSI B101.1 Static & B101.3 Dynamic)	Incline >0.45, Level >0.42
Water Absorption (ASTM C413):	<0.10
Bond Strength (ASTM D7234): (concrete failure)	400 psi
Calcium Chloride Test (ASTM F1869)	10 lbs.

HIGH PERFORMANCE CONCRETE COATINGS



Relative Humidity Test (ASTM F2170) 85%
Microbial Resistance (ASTM G21)
Passes #1

Chemical Resistance

Refer to Arizona Polymer Flooring Chemical resistance guide for full system chemical resistance.

Installation

Please refer to CastorCrete RT-B installation guidelines for information and instructions.

Slip and Fall Precautions

APF recommends coatings or surfacing systems meet ANSI (American National Standard Institute) and NFSI (National Floor Safety Institute) B101.3 Test Method for Measuring Wet DCOF (dynamic coefficient of friction) of Common Hard-Surface Floor Materials, a. incline surfaces >0.45; b. level surfaces >0.42. APF recommends the use of angular slip-resistant aggregate in all coatings or surfacing systems that may be exposed to wet, oily or greasy conditions. It is the contractor's and end user's responsibility to provide a coating or surfacing system that meets current safety standards. APF or its sales agents will not be responsible for injury incurred in a slip and fall accident.

HIGH PERFORMANCE CONCRETE COATINGS