

SYSTEM DESCRIPTION

CastorCrete RT-B 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-B features a silica sand, aluminum oxide or color quartz broadcast finish and can be grout coated and top coated with a variety of products depending on the end use environment. CastorCrete RT-B has an outstanding chemical resistance to most solvents, acids, alkalis, hot oils and animal by-products, while withstanding constant temperature exposure up to 250°F (121°C). Typical installation thickness between 3/16 inch (4.76 mm) and 1/4 inch (6.35 mm).

USES

- Commercial kitchens
- Food and beverage processing and manufacturing
- Pharmaceutical
- Healthcare and research facilities
- Vivarium and animal holding
- Other wet and dry processing areas

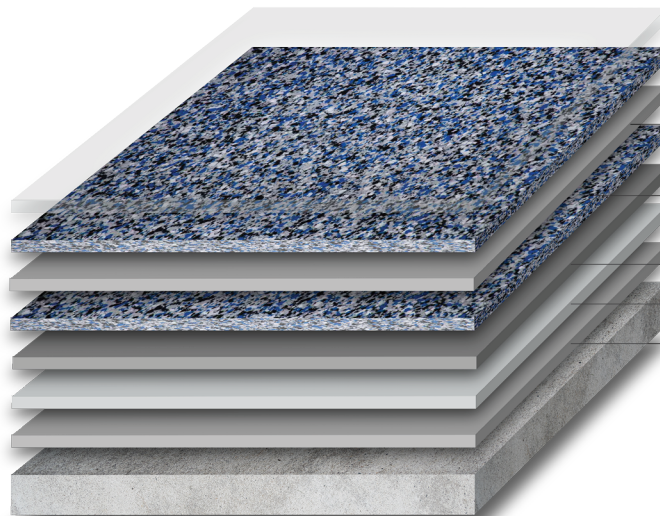
ADVANTAGES

- Aesthetically Pleasing
- Fast Installation
- Moisture Tolerant
- Thermal Shock Resistant
- Impact and Abrasion Resistant
- Chemical Resistant to Organic and Inorganic Acids, Salts, Alkalis and Amines
- UV Resistant Topcoats
- Superior Life Cycle Advantages

COLORS

Available in 5 standard colors and Natural.

TYPICAL SYSTEM BUILD



- **TopCoat:** CastorCrete TC, Epoxy 600 or Polyurea 5100
- **Optional 2nd Broadcast:** Silica Sand, Aluminum Oxide, Color Quartz
- **Optional 2nd Broadcast Coat:** Epoxy 400
- **Broadcast:** Silica Sand, Aluminum Oxide, Color Quartz
- **Mortar Coat:** CastorCrete RT
- **Primer:** Epoxy 100 (as needed)
- **Patching & Filling:** Epoxy 300 Flex Paste

Note: Diagram not to scale

TECHNICAL DATA

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness, Shore D (ASTM D-2240)	85-90
Impact Resistance (ASTM D-2794)	160
Concrete Thermal Compatibility (ASTM C-884)	Passes
Coefficient of Thermal Expansion (ASTM C-531)	1.1X10 ⁻⁵
Flammability (ASTM D-635)	Self Extinguishing
Abrasion Resistance (ASTM C-501) (CS-17, 1,000 gr., 1,000 cycles)	0.32gm loss
Coefficient of Friction Wet Surface (ANSI/NFSI B101.1 Static & B101.3 Dynamic)	Incline >0.45 Level >0.42
Water Absorption (ASTM C-413)	<0.10
Bond Strength (ASTM D-7234) (concrete failure)	400 psi
Relative Humidity Test (ASTM F-2170)	85%

Refer to product data sheet of individual system component for more information.

TYPICAL SYSTEM BUILD

COAT	PRODUCT	THICKNESS/COVERAGE
Patching & Filling	APF Epoxy 300 Flex Paste	As required
Primer	APF Epoxy 100 (as needed)	200 sq. ft./gallon (8 mils WFT)
Mortar Coat	APF CastorCrete RT	3/16"- 31 sq. ft., 1/4"- 21 sq. ft./mixed kit
Broadcast	Silica Sand, Aluminum Oxide, Color Quartz	0.5 - 0.75 lbs./sq. ft.
Optional 2nd Broadcast Coat	APF Epoxy 400	100 sq. ft./gallon (16 mils WFT)
Optional 2nd Broadcast	Silica Sand, Aluminum Oxide, Color Quartz	0.5 lb./sq. ft.
Topcoat Option 1	APF CastorCrete TC	280 sq. ft./19lb. kit (10 mils)*
Topcoat Option 2	APF Epoxy 600	100 sq. ft./gallon (16 mils WFT)*
Topcoat Option 3	APF Polyurea 5100	200 sq. ft./gallon (8 mils WFT)*

*Topcoat coverage determines final texture.

APPLICATION INSTRUCTIONS

1.0 Concrete Moisture

It is the applicator's responsibility to test and record concrete moisture levels according to ASTM F270-19. Contact APF Technical Service if the relative humidity exceeds 99%.

2.0 Surface Preparation

Concrete must be cured for at least 7-10 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

3.0 Crack Repair

Use Epoxy 300 Flex Paste immediately after mixing. Spread the product with a flat trowel, margin tool, or broad putty/plaster knife. Gunning is not recommended for this material.

Apply to fill the joint completely. If the product settles into the joint below the concrete surface, apply additional material. The cured product must be level with the concrete surface. Allow to cure before the final coat.

4.0 Application of Primer Coat

Under normal circumstances, CastorCrete RT-B is applied directly to the concrete without a primer. However, if the concrete is badly damaged or excessively porous, the use of APF Epoxy 100 as a primer can

reduce outgassing, pinholes or blisters. A test area is recommended to determine if a primer should be used. After any patchwork/crack repair has cured, if primer is required, apply one coat of Epoxy 100 after mixing according to the product data sheet. Apply material onto surface immediately after mixing with a squeegee, back roll using a quality solvent resistant 3/8-inch nap roller cover. Apply at a rate of 200 sqft/gallon at 8 mils WFT. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}**

5.0 Application of CastorCrete RT with Broadcast

Do not apply to previously coated surfaces; apply directly to concrete except for when priming is necessary. Cut Key-ways according to product data sheet. For small areas, CastorCrete RT can be spread and finished with a steel trowel.

Raked the material with a cam-gauge rake to the desired thickness, use a finishing trowel to compact and smooth out the rake marks. As soon as the mortar is relatively closed, immediately roll the surface with a looped roller or spike roller to remove trowel marks and bring the resin to the top. When placing the cementitious polyurethane mortar it is very important to keep a "wet edge" between mixes, therefore each batch must be placed within working time of the prior one. Failure to due this could result in a visible tie-in line.

APPLICATION INSTRUCTIONS

Excessive toweling or rolling can bring more resin to the top and reduce slip resistance.

The broadcast of silica sand, aluminum oxide, or color quartz is recommended at 0.5 to 0.75 pound (0.23 kg to 0.34 kg) per square foot (0.092 square meters). It is very important to broadcast the silica sand, aluminum oxide, or color quartz be applied within 5 - 10 minutes of the final rolling of the CastorCrete RT. If the material exceeds its open time to receive the broadcast aggregate the result will be a non-uniform absorption of the aggregate. After the CastorCrete RT and broadcast cures, remove the excess (non-bonded) broadcast aggregate with a broom and use oil free compressed air to blow the surface free of remaining broadcast aggregate.

6.0 Optional 2nd Broadcast Application

Once all the loose quartz has been removed and the floor is vacuumed, mix the Epoxy 400 according to the product data sheet. Apply Epoxy 400 onto the surface immediately after mixing with a squeegee, back roll with using a quality solvent resistant 3/8-inch nap roller cover. Apply at a rate of 100 sqft/gallon at 16 mils WFT. A "wet edge" is recommended when applying product, do not attempt to roll over material that has begun to set. An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting [using North-South, East-West Method.]**

Allow the Epoxy 400 to level for 10-15 minutes, then broadcast color quartz until refusal at a rate of ~0.5 pounds per square foot. Allow Epoxy 400 and Broadcast layer to cure for ~6-12 hours prior to removing the excess quartz.

7.0 Top Coat Application Options (apply one of the following)

CastorCrete TC: As soon as the mortar can be walked on or after the overnight cure of the optional 2nd Broadcast Coat and excess broadcast is removed with a broom and use oil free compressed air to blow the surface free of remaining color quartz, apply the CastorCrete TC. Place the CastorCrete TC immediately after mixing and spread with a squeegee and backroll with a 3/8 inch (9.5 mm) nap roller at a rate of 280sqft/19lb kit (10 mils). It is very important to keep a wet edge between mixes, therefore each batch must be placed within working time of the prior one. Failure to do this could result in a visible tie-in line.

If top coat installation will exceed the "coating window" of 12 hours, a light grind to remove contaminants is required prior to installing CastorCrete TC.

Epoxy 600: As soon as the mortar can be walked on or after the overnight cure of the optional 2nd Broadcast Coat and excess broadcast is removed with a broom and use oil free compressed air to blow the surface free of remaining color quartz, apply the Epoxy 600 Clear after mixing in accordance with the product data sheet. Top coat with Epoxy 600 Clear at 100 sqft/gallon (16 mils WFT).

Polyurea 5100: As soon as the mortar can be walked on or after the overnight cure of the optional 2nd Broadcast Coat and excess broadcast is removed with a broom and use oil free compressed air to blow the surface free of remaining color quartz, apply the Polyurea 5100 after mixing in accordance with the product data sheet. Top coat with Topcoat Polyurea 5100 at 200 sqft/gallon (8 mils WFT).

LIMITATIONS

- Prior to application, measure and confirm that ambient temperature and substrate temperature are at least 5 degrees over the dew point.
- High humidity/low temperature will prolong cure time.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

HANDLING & SAFETY

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin; wear protective gloves. User must read and understand Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.

APF_CastorCrete_RT-B_System_Data_11.10.25

STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of us.