

FloroCrete RT 3.0 Rake/Trowel Slurry Broadcast Urethane Mortar

Product Description: FloroCrete RT is a solvent free, low odor, rake/trowel slurry broadcast system that is designed for the most strenuous uses and activity. It is specially formulated for areas where thermal shock, heavy impact and chemical attack are issues. It allows moisture to move through it at a safe rate and it can be installed from a 3/16" to 1/4" (4.5 mm to 6.0 mm) thickness.

Typical Uses, Applications: FloroCrete RT may be used as a part of the Florock FloroProof Moisture Mitigation System (contact your Florock Representative for details) and is ideally suited for commercial, industrial and institutional applications, such as:

- Kitchens/Fryer Areas
- Vehicle Service Areas
- Food Processing Plants
- Breweries, Wineries & Dairies
- Walk-In Coolers & Freezers
- Bottling Facilities
- Laboratories
- Suitable for Indoor & Outdoor Use
- Chemical Processing
- Sanitation & Wash-Down Areas

Product Advantages:

- CA 01350 Air Quality Compliant
- ADA Compliant
- LEED Credits Available
- Meets FDA, USDA & CFIA Standards
- VOC Compliant/Low Odor
- Thermal Shock Resistant
- Heat Resistant to 235° F
- Contains Antimicrobial Additive
- No Topcoat Required
- Tolerates Dampness
- High Chemical & Abrasion Resistance
- Can be Applied to 7 to 14-Day-Old Concrete

System Physical Properties		
Property	Test Method	Results
Compressive Strength	ASTM C579	9,000 psi
Tensile Strength	ASTM D638	4,200 psi
Flexural Strength	ASTM D790	5,100 psi
Hardness, Shore D	ASTM D2240	85
Bond Strength	ASTM D4541	>400 psi
Co-Efficient of Friction	ASTM D-2047	Passes ADA Recommendations
Co-Efficient of Thermal Expansion	ASTM C531	1.1x10 ⁻⁵ in/in/°F
Impact Resistance	ASTM D2794	>160 in lbs.
Flammability	ASTM E-648	Class I
Abrasion Resistance	ASTM D4060	40 mg loss
Indoor Air Quality	CA 01350	Compliant
Water Absorption	ASTM C413	0.04%
Resistance to Fungi Growth	ASTM G21	Passes
VOC	EPA Method 24	0
Service Temperature	Lab Tested	-100° F to 235° F
Workable Life*	1 Mixed Kit	15 minutes
Cure time at 70° F @ 50% RH**		
Set to Touch		8-10 hours
Foot Traffic		12-16 hours
Full Service		24-48 hours
Clean-Up Solvent		MEK

**After blending the components, immediately empty from mixing bucket onto the floor.*

***Cooler temperatures require longer cure time. See FloroCrete Catalyst Tech data for more information.*

Packaging: Each FloroCrete RT component is packaged and sold separately. A complete batch consists of:

- Part A – Polyol Component
- Part B – Isocyanate Component
- Part C – FloroCrete RT Filler

Optional: A variety of broadcast media are sold separately.

Colors: FloroCrete RT is available in Grey, Tile Red, Neutral and custom colors.

Storage: All containers should be stored at 45° F to 85° F (7° C to 29° C) and be kept tightly sealed and out of direct sunlight. The shelf life for this product is 12 months from date of manufacture.

Coverage: Apply FloroCrete RT at 28.8 SF per kit to achieve 3/16” thickness (2.67 m² per kit to achieve 4.5 mm thickness). With the aggregate or flake broadcast, the final thickness will be 1/4” (6.0 mm).

Limitations: FloroCrete RT is not to be applied in temperatures below 45° F (7° C) or above 85° F (29° C), or when relative humidity is greater than 85%. Apply only to dry, properly prepared, uncoated, reinforced concrete floor slabs that have a moisture content of less than 10%. Do not apply if air temperature and/or surface temperature are at or below dew point. During application, protect substrate from exposure to water leakage or condensation from pipes. Do not feather-edge, do not hand-mix material and do not apply to cracked or unsound substrates. Product is for horizontal use on dry concrete surfaces only.

Substrate Preparation: Mechanically prepare concrete surface using shot-blaster, diamond grinder or other approved method. Ensure that all surface contaminants are removed. Determine that concrete is sound, with appropriate compressive strength. A Schmidt hammer can be used for this purpose. If concrete has strength of less than 3,000 psi, replace concrete before installing FloroCrete RT. FloroCrete RT is not intended for use over existing coatings.

Chemical Resistance of Mortar	
Reagent	Results
Hydrochloric Acid 37%	R
Hydrofluoric Acid 4%	R
Hydrofluoric Acid 6%	R
Nitric Acid 30%	R
Phosphoric Acid 85%	R
Sulfuric Acid 39%	R
Sulfuric Acid 45%	R
Acetic Acid 10%	R
Acetic Acid 60%	L
Acetic Acid, Glacial 100%	L
Acetic Anhydride 98%	L
Citric Acid 40%	R
Formic Acid 10%	R
Lactic Acid 85%	R
Dibutylamine 100%	R
Ammonium Hydroxide 30%	R
Potassium Hydroxide 50%	R
Sodium Hydroxide 50%	R
Ammonium Chloride (sat'd)	R
Ammonium Sulphate (sat'd)	R
Ammonium Nitrate 50%	R
Ammonium Aqueous 30%	R
Zinc Chloride 50%	R
Ferric Chloride 50%	R
Hydrogen Peroxide 3%	R
Potassium Carbonate (sat'd)	R
Potassium Chloride (sat'd)	R
Sodium Carbonate (sat')	R
Sodium Chloride (sat'd)	R
Sodium Nitrate (sat'd)	R
Sodium Sulphate (sat'd)	R
Sodium Hydro chlorite 10%	R
Diacetone Alcohol 100%	R
Acetone 100%	L
Benzyl Alcohol 100%	R
n-Butyl Alcohol	R
Ethyl Alcohol 100%	R
Glycol Ether Acetone 100%	R
Hexane 100%	R
Isooctane 100%	R
2-Propanol	R
Methyl Alcohol 100%	R
Methylene Chloride 100%	L

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Expansion Joints: In addition to standard slab expansion joint construction, place new joints wherever FloroCrete RT is adjacent to dissimilar materials. Isolate areas subject to movement, vibration, thermal stress, load-bearing columns, and vessel sealing rings. Rout-out cracks and fill with FloroCrete HD or FloroCrete RT prior to floor system installation. Treat very large cracks as expansion joints and fill with Florock 6500 Elastomer Sealant (see tech data for details).

Coving: Prime the area to receive a cove with FloroCrete P (see tech data for details) and seed using Florock 1-126 sand then proceed with cove; this is a wet-on-wet application. For FloroCrete RT cove, mix 1 complete kit of FloroCrete RT with 1.5 50 lb bags of Florock 1-126 sand. This mix will cover 83 LF of 6" cove or 125 LF of 4" cove (25.3 meters of 10cm cove or 38.1 meters of 15cm cove).

FloroCrete RT Application:

1. Primer: Priming is usually not required. However, if concrete is very porous, or if this product is going to be used neat (without a broadcast), primer is required. Apply primer at 5 mils to 10 mils (127 microns to 254 microns). See FloroCrete P Technical Data Sheet and your Florock Representative for details.

2. Florocrete RT Mortar: Combine FloroCrete RT Component A and Component B. Blend together with a "mudd mixer" for 30 to 60 seconds. Add Part C (dry material) to A and B and mix again for 60 seconds, making sure aggregate is thoroughly wetted out. Scrape down sides and bottom of container with a flat or straight edge trowel to assure complete mixing. Then, immediately dump mixture onto floor for application. Be sure to MIX FULL KITS. Because temperature will affect mixing, mix when air temperature is between 50° F and 70° F (10° C to 21° C).

Note: Flash setting may occur if material remains in bucket too long (10 minutes is max.) or if left in a heap on floor.

Chemical Resistance of Mortar

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Reagent	Results
Mineral Spirits 100%	R
Pentane 100%	R
Petroleum Ether 100%	R
Boric Acid 100%	R
Muriatic Acid 80%	R
Ethylene Glycol 100%	R
Copper Sulfate (in solution)	R
Benzoic Acid 100%	R
Diesel Fuel 100%	R
Stearic Acid	R
Amyl Acetone	R
Fatty Acid 100%	R
Toluene 100%	R
Xylene 100%	R
Antifreeze 100%	R
Glycol Ether PM 100%	R
Transmission Fluid 100%	R
Freon 100%	R
Glycerin 96%	R
Oleic Acid	R
100 Solvent 100%	R
Kerosene 100%	R
Mineral Oil 100%	R
Brake Fluid 100%	R
Sugar Solution (sat'd)	R
Motor Oil 100%	R
Water	R
MEK & MIBK	L

Key:

R - Resistant. Appropriate for long term spills and secondary containment.

L - Limited Resistance. Appropriate for splashing and spills that are promptly cleaned up.

F - Not Recommended.

Note: Best results are achieved when floor to be coated is divided into areas of 8 to 10 LF of wet edge per mechanic. Begin working away from or alongside a wall. Trowel a small area and then measure thickness. Use this initial area as a standard and proceed.

Application: Pour material onto the floor and spread to the desired thickness using a screed rake or trowel making sure to spread each newly mixed batch across the transition of the previously applied materials before it begins to set. Immediately loop roll or spike roll. Ensure that the surface is level, and then proceed with broadcasting media to rejection while FloroCrete RT is wet. Broadcast with 40/100 mesh silica sand, colored quartz or vinyl chips. For an aggregate broadcast, figure 1/2 lb. per SF (2.4 kg/m) and for a chip broadcast, figure 1 lb. per 9 SF (.55kg/m²). Let broadcast media fall vertically. DO NOT broadcast up to the transition line of new mixes; stay two to three feet beyond the wet edge. Allow broadcast surface to cure, remove excess by sweeping or vacuuming until surface is dust free.

3. Topcoats: There are many topcoat options available; however the use of epoxy finishes should be avoided wherever thermal shock or hot oil will be present. Consult your Florock Representative for details.

Cure Time:

The chemical curing of FloroCrete RT is affected by temperature. At 70° F (21° C) curing temperature, expect to walk on the floor in 12 hours, with full traffic after 24 hours. At 45° F (7° C) curing temperature, allowing foot traffic may take 48 hours or longer; therefore, it is imperative that air and substrate temperatures be kept above 70° F (21° C) for best cure.

Tech Notes:

FloroCrete Catalyst R0-178 – Add up to 4 ounces per kit to shorten the cure time. The amount of catalyst added will be based on the temperature & speed of cure desired. Catalyst will shorten the pot life. Contact your Florock Representative for details.

Maintenance:

FloroCrete RT floors can be maintained by using a stiff mechanical brush and/or hot pressure washer or steam cleaner. Surfactant-type detergents or degreasers may be used; however, avoid products containing Phenol, as this may damage color. Though FloroCrete is highly chemical resistant, a test patch is recommended prior to using any harsh cleaners.

Please read material safety data before using product.

Disclaimer:

All statements and recommendations are based on experience we believe to be reliable. The use or the application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any warranty, expressed or implied, as to results or hazard from its use. The suitability, risk and liability of a product for an intended use shall be solely up to the User.