

AC•Tech 2170™ FC is a two component, 100% reactive solids clear epoxy which contains no fillers or extenders and no VOC emissions. It is a true one coat moisture vapor reduction system which has been formulated to remain bonded to properly prepared concrete with high moisture emissions and a high alkaline load. It is acceptable for use on both new and old concrete slabs, on, below or above grade. The material consists of a blend of special, 100% reactive, fast curing epoxy resins engineered specifically for fast-track construction projects in need of a fast curing vapor reduction system. The **AC•Tech 2170™ FC** can be applied to concrete with tested RH levels of 100% (ASTM F2170) and 25+ lbs. MVER (ASTM F1869). **AC•Tech 2170™ FC** is alkaline insensitive to pH levels of 14 sustained. Because of this high level of performance, **AC•Tech 2170™ FC** does not require moisture testing, as it has no upper limit for moisture. All resilient flooring systems can be installed directly over the **AC•Tech 2170™ FC**, including most resinous floor coatings. **AC•Tech 2170™ FC** is easy to apply after proper surface preparation. Mix, pour, spread with a squeegee and back roll. This material cures in 4 hours and is ready for self-leveling underlayment or flooring adhesives to be applied directly over the cured system. **AC•Tech 2170™ FC** is a concrete moisture remediation coating for all types of flooring systems, such as (but not limited to) those installed in: office buildings, hotels, hospitals, schools, aircraft hangars, sports complexes, warehouses and re-purposed structures. **AC•Tech 2170™ FC** can be used on any indoor or outdoor concrete structures requiring moisture vapor reduction and alkalinity control.

Features

- True Single Coat System; No Sand Broadcasting
- Zero VOC Emissions / Odorless
- No Moisture Testing Required
- No Upper Moisture Limit
100% RH, ASTM F2170
25+ lbs. MVER, ASTM F1869
- Resists Alkalinity to pH of 14
- Complies with ASTM F3010
.07 Perms, ASTM E96 at 12 mils
- 4 Hour Fast Cure
- Can Be Installed Over New Concrete
- Very High Chemical Resistance
- Very High Mechanical Resistance
- 15 Year Labor & Material Warranty
- Ideal for “overnight” floor renovations requiring “no odor” solution.

Chemical Resistance

- Diluted Acids
- Diluted Alkalis
- Saline Solutions
- Mineral Oils
- Sewage Water
- Lubricants
- Fuels
- Wet: Up to 140° F (short term)
- Dry: Up to 160° F

For any chemical not listed or for questions regarding chemical resistance, please contact AC•Tech technical staff.

Technical Data

Mixing Ratio (A:B)	A: 2.43; B:1
Density (75° F)	1.10 g/cm3
Volume Solids	100%
VOC Emissions	0.000 g/l
Viscosity (75° F)	900 cps
Compressive Strength	14,500 PSI
Tensile Strength	4,300 PSI
Water Absorption	< 1.5%
Shore D Hardness	82 at 48 hrs

ASTM E96 Test Results

Test Type	Test Result
Water Vapor Transmission (European Standard)	.02 g / hr / m2
Water Vapor Transmission (American Standard)	.24 lb / 1000 ft2 / 24 hrs
Avg. Measured Permeance	.07 gr / hr / ft2 in Hg1
CTL Group Project no: 281337	10.25.2012

Packaging

Packaging	2.4 Gallon Units
Color	Clear
Storage	12 months, in original unopened containers under dry conditions and a temperature of 50°-90° F.

Details for Application

Pot Life (50° / 75° / 90° F)	35 Minutes/25 Minutes/10 Minutes
Substrate Temperature	50° - 90° F
Storage Temperature	50° - 90° F
Application Humidity Dew Point	+5° F (Steady and/or rising)
Concrete Cure Time (Prior to Application)	3 - 5 Days
Minimum Time Between Coats (75° F)	4 Hours*
Cure Time / Foot Traffic (75° F)	4 Hours*
Cure Time/Floor Installation (75° F)	4 Hours*
Cure Time/Mechanical Resistance(75° F)	12 Hours*
Cure Time/Chemical Resistance (75° F)	2 Days*

*All above values are approximate and may be used as guidelines for specifications. Cure times are approximate and dependent upon ambient temperature and humidity conditions of the job site.

Coverage Rates

Concrete	CSP Value	Spread Rate
New Concrete (LEED NC2009 MRc4 qualified)	3	135 - 150 Sq. Ft. / Gallon
New/Existing Concrete (Non-LEED qualified)	4	75 - 125 Sq. Ft. / Gallon

Coverage rate may vary based on factors such as the concrete matrix, surface porosity and surface profile achieved (ICRI - CSP Value) after floor preparation is completed. Please consult the AC•Tech technical staff on any questions or concerns regarding this spread rate. These spread rates may be altered to suit individual substrate circumstances, requirements, or needs.

1. Tools & Equipment

Prior to installation, please ensure that you have all of the necessary tools and equipment to complete installation such as (but not limited to): protective gloves, protective eyewear, protective footwear, spiked cleats/sandals, diamond planetary grinder with vacuum attachment, shot blasting machine, Vacuum or ShopVac, 300 - 400 RPM drill with epoxy / jiffy mixing attachment, 10 - 16 mil notched or flat squeegee with handle and a 3/8" short nap roller with handle or 3/16" Nap Roller with 12 mil roller gauges.

2. Surface Preparation

All concrete surfaces where AC•Tech 2170™ FC will be applied must be sound, clean, absorptive and free of all adhesives, coatings, curing compounds, concrete sealants, efflorescence, grease, oil, patching materials, previous flooring materials and any other material that may act as a bond breaker or sponsor osmosis. All concrete must comply with ACI 201: Guide To Durable Concrete. All concrete must be mechanically prepared according to ICRI Concrete Surface Profiles (CSP).

On new concrete an ICRI CSP-3 surface is required; on old concrete an ICRI CSP-4 is required. For more information regarding concrete surface profiles, please consult ICRI Technical Guideline No. 03732 or

contact AC•Tech technical staff.

Using a diamond grinder, prepare perimeter and corners to the same CSP value as the substrate. Once complete, use a Shot Blasting Machine to prepare application area to appropriate CSP. Grinding is more challenging when trying to achieve appropriate CSP, however, it can be used when shot blasting is not possible. Consult AC•Tech technical staff if grinding and for further information regarding surface preparation.

3. Installation Conditions

Prior to installing the AC•Tech 2170™ FC, ensure that air, concrete and AC•Tech 2170™ FC material are within 50° - 90° F. Ensure that air and substrate temperatures are not within 5° F of the dew point. Condensation prior to or during application as well as during curing could effect the quality of the AC•Tech 2170™ FC installation. When applying product in areas with fluctuating temperatures or outdoors, ensure temperatures are steady and/or falling at time of application. When temperatures are within 5°F of dew point, ensure temperatures are steady and/or rising at time of application. For help determining the dew point, please see AC•Tech Dew Point Chart or contact the AC•Tech technical staff.

4. Mixing Instructions

Organize the mixing station by protecting and covering area with plastic or cardboard. It should be located near the point of material placement. Pour Part B into Part A and mix for 3 minutes using a 300 - 400 RPM drill and a Jiffy mixer attachment. When mixing is complete, immediately pour ALL of the mixed material onto the prepared concrete surface. A third mixing pail is also recommended for homogenizing residual material left on the sidewalls of the metal pails. DO NOT set metal pails upsidedown on floor to empty. Drain all reactive contents and discard pails. Dispose empty pails according to local, state, and federal regulations and guidelines.

WARNING: Leaving mixed material in cans will cause an exothermic reaction resulting in potentially harmful smoke. Empty all cans ENTIRELY. Move all empty cans outside.

5. Installation Instructions

The AC•Tech 2170™ FC is applied in one coat. Quickly spread material using a flat or notched squeegee (10 - 16 mil) and ensure proper coverage rates are achieved. Do not allow material to remain puddled for very long, as the material may begin to harden prematurely.

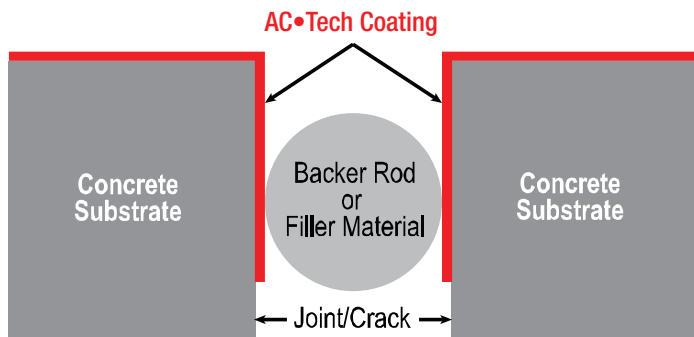
As soon as the material is spread, back-roll using a 3/8" short nap roller that is suitable for epoxies to ensure even coverage. Replace paint roller as necessary. Provide adequate ventilation while curing and protect area from water, moisture, dirt, dust and foot traffic. Allow AC•Tech 2170™ FC to cure at least 4 hours (Depending on ambient temperatures and humidities) before allowing foot traffic or placing items on the surface. *Follow any and all manufacturer's specifications and instructions when installing any and all flooring systems.*

6. Cracks and Joints

Static or non-moving cracks that are 1/64" wide or less can be sealed with the AC•Tech 2170™ FC. Static or non-moving cracks that are between 1/64" and 3/64" wide and in temperature stable environments can be saw-cut/chased and filled by troweling a mixture

of AC•Tech 2170™ FC and Cab-o-Sil® or Aerosil®.

Static or non-moving cracks, control cuts and expansion joints that are larger than 3/64" AND any dynamic or moving cracks, control cuts and expansion joints or any concrete substrates that are exposed to temperature fluctuations should be treated as follows: Open crack, control cut or expansion joint to 1/4" width and coat all exposed crack walls with the AC•Tech 2170™ FC during normal installation; Once cured, install a flexible backer rod into void; install a suitable two-component caulk over backer rod and into crack to bring flush with concrete surface and proceed with subsequent installation (see illustration below).



For any questions regarding cracks, please consult AC•Tech technical staff.

7. Cleaning Instructions

Prior to installing any and all subsequent coatings, adhesives or materials, AC•Tech 2170™ FC must be cured to accept foot traffic. Ensure AC•Tech 2170™ FC is clean, solid, sound and free of oil, grease, gypsum, dust and any other material that may act as a bond inhibitor. If necessary, clean AC•Tech 2170™ FC with Xylene, denatured alcohol or a streak and film free, pH neutral cleaner.

8. Cementitious Underlayment & Patching

Prior to installing self-leveling underlayments, patches or other cementitious materials, the AC•Tech 2170™ FC must have a primer installed over it to ensure proper adhesion. Use AC•Tech 2170™ SLP or an approved primer from the underlayment's manufacturer. If applying the AC•Tech 2170™ SLP to AC•Tech 2170™ FC use a 1/16" short nap roller to ensure a spread rate of ~900 sq. ft. / gallon is achieved; AC•Tech 2170™ SLP must be applied THIN. (Refer to AC•Tech 2170™ SLP Data Sheet). Allow proper cure time for AC•Tech 2170™ SLP before installing self-leveling underlayments or patches. All self-leveling underlayments, patches and any other cementitious materials must be installed over the cured AC•Tech 2170™ FC (unless otherwise specified), NEVER UNDER IT. Follow any and all manufacturer's specifications and instructions when installing cementitious materials unless otherwise instructed by AC•Tech technical staff. For further information, please consult AC•Tech technical staff.

9. Final Flooring & Coatings Installation

Most resilient flooring products and adhesives can be installed directly over the cured AC•Tech 2170™ FC. Ensure adhesive is formulated to be applied to a non-porous substrate or contact the flooring and/or adhesive manufacturer for the proper adhesive.

Resinous flooring systems (such as epoxy or polyurethane) can be installed directly over the cured AC•Tech 2170™ FC material upon cure.

Recoat window: For application of epoxies, polyurethanes, and other fluid applied final toppings on the cured AC•Tech 2170™ FC systems within 30 days or less, ensure that the surface is dust and debris free prior to any final flooring or coatings installation. If over 30 days perform a light sanding with a buffer type sander and 60-80 grit sandpaper or coarse scuff pad. Clean up all dust and debris from sanding prior to any final flooring or coatings installation.

If a long period elapses between AC•Tech 2170™ FC installation and final flooring, inspect floor for any mechanical damage or breaches in the membrane. Repair any and all breaches with AC•Tech 2170™ FC prior to final flooring installation.

Follow any and all manufacturer's specifications and instructions when installing any and all flooring systems.

10. MMA or PMMA Roofing Installation

When installing MMA or PMMA roofing materials and membranes over the cured AC•Tech 2170™ FC material, do not allow more than 48 hours to elapse from the time the AC•Tech 2170™ FC coating cures. If more than 48 hours has passed, ensure the initial coating is clean and re-apply the AC•Tech 2170™ FC material per Installation instructions at a spread rate of 200 sq. ft. per gallon and, once cured, proceed with roofing installation. Follow any and all manufacturer's specifications and instructions when installing any and all roofing systems.

11. Health and Safety

Always review product SDS before handling product. Do not expose skin, eyes or ingest mixed or unmixed AC•Tech 2170™ FC. When dealing with ingestion, note product CAS numbers and treat accordingly. Store, transport and dispose of in accordance with procedures in product SDS. Wear proper Personal Protective Equipment (PPE) when mixing and applying material.

12. First Aid

Eye Contact: Flush immediately with clean water and seek medical attention.

Skin Contact: Wash affected areas with soap and fresh water. If a negative skin reaction is recurring, keep individual away and do not come into contact with material.

**FOR COMMERCIAL USE ONLY: KEEP OUT OF REACH OF CHILDREN & PERSONNEL NOT TRAINED IN ITS USAGE
READ SDS & SAFETY PRECAUTION PRIOR TO USE.**