

<p><b>Description</b></p>	<p><b>Special ASTM F3010 / C1315 Compliant Concrete Primer (or Self-Priming Base Coat) for Industrial, Commercial, and Seamless Flooring</b></p> <p><b>Bonding Coat for Decorative Broadcast media</b></p>
<p><b>Field-Tested and Approved for Use Under</b></p>	<p>Fluid Applied Coatings</p> <p>Concrete Overlays and Toppings</p> <p>Decorative Flooring “Flake and Quartz”</p> <p>Industrial Coatings</p> <p>Commercial Flooring</p>
<p><b>Approvals/ Standards</b></p>	<p><b>ASTM E96 Vapor Permeance Testing</b> (0.07 perms at 12-mils spread rate) Independent testing by ISO/IEC 17025-2017 Certified Lab CTL Labs Report: #281337 • Date:10.25.2012</p> <p><b>ASTM F3010 Compliant</b> (stops moisture vapor up to 99% RH; withstands 14 pH).</p> <p><b>ASTM C1315 Type 1, Class C Curing Compound</b> Qualifies as a Membrane Forming Curing and Sealing Compound on Green Concrete. TEC Lab No. 14-331-1 Date: 01.18.2015</p> <p><b>SCAQMD Compliant</b> (Zero VOC Emissions ; Classroom and Office scenario) Independent testing by ISO/IEC 17025-2017 Certified Lab VOC’s: 0.00 g/l - Method: CDPH/EHLB/Standard Method Ver. 1.1, 2010 Berkley Analytical: Certificate #140527-01 Date: 5.27.2014</p> <p><b>ISO 9001:2015 Manufacturing Certification.</b> AB-Polymerchemie; GmbH; Aurich Germany</p>
<p><b>Features and Benefits</b></p>	<ul style="list-style-type: none"> <li>• Moisture testing <b>not</b> required for warranty. Controls up to 99% RH and pH14.</li> <li>• 4 Hour Fast Cure Formula for Quick Project Turnaround.</li> <li>• Spreads easily. Self-Leveling. No special training required.</li> <li>• 100% reactive solids. No solvents, plasticizers or fillers.</li> <li>• ZERO VOC Emissions. Complies with environmental laws/guidelines for all 50 states.</li> <li>• Very Low to No Odor. Best choice for protecting crew, building occupants, and merchandise.</li> <li>• 2<sup>nd</sup> “Bonding Coat” can be applied within 4 hours for decorative media broadcast.</li> <li>• Product performance history in USA since 2000</li> <li>• 15 – Year Labor and Material Performance Warranty for projects completing QC documentation.</li> </ul>

<p><b>Limitations</b></p>	<ul style="list-style-type: none"> <li>Needs UV protective topcoat.</li> <li>Do not apply over gypsum/gypcrete.</li> <li>Do not apply on concrete suspected of containing ASR.</li> <li>Do not apply on concrete that has been pre-treated with potassium, sodium silicates, or colloidal silicas topically applied or as an admixture. SEND MIX DESIGN TO ACTECH.</li> <li>If project has had tilt-up construction consult ACTECH, mold release agents can act as bond-breakers.</li> </ul> <p>CONSULT ACTECH TECHNICAL TEAM WITH ANY QUESTIONS OR CONCERNS ON LIMITATIONS.</p>
<p><b>Packaging</b></p>	<p>0.5 Gallon, 2.4 Gallon, and 5.0 Gallon Combi Units      <b>Color</b> Clear/Amber</p>
<p><b>Storage</b></p>	<p>Shelf Life 24 months; No Direct Sunlight; Protect from Freezing. Do Not Store Outside. Acclimatize material for 48 hours prior to use. Keep away from sparks, fire, and other sources of ignition.</p>
<p><b>Project Registration for Performance Warranty</b></p>	<p><b>Pre-Project Registration for Performance Warranty</b></p> <p>ACTECH’s 15-year Labor + Material Performance Warranty is ONLY available to eligible projects that have been pre-registered and approved by ACTECH <b>before installation begins</b>.</p> <p>See below for Required documents for registering a project and requesting the issuance of ACTECH’s 15 Year Labor + Material Performance Warranty.</p> <p style="text-align: center;"><b>Pre-Project (Pre-Registration) Forms:</b></p> <ol style="list-style-type: none"> <li>ACTECH Approved On-Site Supervisor Form - <b>Required for Warranty</b></li> <li>ACTECH Pre-Job Survey – <b>Required for Warranty</b></li> <li>Approved Mock-Up Test Report(s) – <b>Strongly Recommended</b></li> </ol> <p style="text-align: center;"><b>Post-Project Forms:</b></p> <ol style="list-style-type: none"> <li>ACTECH Final Job Installation Report - <b>Required for Warranty</b></li> <li>15-Year Performance Warranty - <b>Required for Warranty</b></li> </ol>
<p><b>Pre-Installation Advice</b></p>	<p style="text-align: center;"><b>Industry Procedures to Determine Acceptability of Substrate for Concrete Coatings</b></p> <p style="text-align: center;"><b>(See ACTECH Pre-Job Survey)</b></p> <ol style="list-style-type: none"> <li>All concrete surfaces where ACTECH 2170™FC will be applied must be sound, clean, absorptive, and free of all adhesives, coatings, coverings, curing compounds, concrete sealants, unknown patching, gypsum based products, dust, dirt, efflorescence, grease, oil, Sodium Silicates, Potassium Silicates, or Colloidal Silicas either topically applied or as an admixture, and any other material that may act as a bond breaker or sponsor osmosis. All concrete must comply with ACI 201.2R and 302.2R. All concrete must be mechanically prepared according to ICRI Concrete Surface Profiles (CSP). Contact ACTECH Technical Team for information concerning other products and conditions that could adversely affect the ACTECH 2170™FC.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Minimum of 200 psi tensile (ASTM C1583 / C1583M – 20); and 3,000 psi compressive (ASTM D7234).</li> <li>3. Aggregate has been tested to meet ASTM C33 Requirements (Precaution against ASR)</li> <li>4. If project is on New Concrete, please submit concrete mix design to ACTECH Technical Team for review. Best submitted before concrete is poured.</li> <li>5. Lab Testing of Concrete Cores is a Best Practice on Existing Concrete to determine if there is any evidence of potential bond-breakers that can affect the performance of any concrete coating or liquid-applied traffic/roofing membrane.</li> <li>6. Mock-Ups should be scheduled and budgeted for in advance of every project. Mock-Ups are a Best Practice and are strongly recommended for eligibility for ACTECH Performance Warranty. Mock-Ups will help determine the suitability of the ACTECH material for the project substrate, the suitability of the substrate surface preparation for the successful application of the ACTECH material, and the level of competence and experience of the epoxy application crew as regards dew points, changing environmental conditions, and site conditions. Mock-Ups also provide feedback for predicting problems and tweaking application protocols before the project begins.</li> </ol>
<p style="text-align: center;"><b>Surface Preparation per ICRI Tech Guide No. 310.2R-13</b></p>	<p><b>New concrete: CSP-3   Existing concrete: CSP-4</b></p> <p><b>Tools:</b> Shot Blaster and Hand Diamond Grinder with dust collection</p> <ol style="list-style-type: none"> <li>1. <u>Existing concrete:</u> remove all existing coatings, sealers, coverings, flooring, etc. Use best mechanical means. Prepare concrete to a CSP-4 per ICRI CSP profiles.</li> <li>2. <u>New concrete:</u> Prepare concrete to a CSP-3 profile.</li> <li>3. <u>On green concrete</u> wait a minimum of 72-hours after final set and prep to a CSP 3.</li> <li>4. Remove all fugitive shot, dust and debris from prepared surface.</li> </ol> <p><b>NOTE:</b> Shotblasting is the preferred method for surface preparation. If grinding is performed, it must deliver a consistent dust-free profile. Contact ACTECH Technical Staff if shot blasting is not possible.</p>
<p style="text-align: center;"><b>Concrete Requirements Before Coating</b></p>	<p>CONCRETE: Compliance with ASTM F710, ASTM F3010, ASTM F3191 and ACI 302.1R:</p> <ol style="list-style-type: none"> <li>1. Concrete must be absorptive; conduct water drop test per ASTM F3191. After substrate preparation, conduct Water Drop Test on substrate per ASTM F3191 to determine (and document) absorbency of the concrete substrate. If water drop does not penetrate into the concrete within a minute of being placed on the surface of the profiled substrate, there may be potential bond breakers that still need to be removed through additional prep. The substrate must be absorbent prior to applying ACTECH 2170™ FC.</li> <li>2. Must be visibly dry, dust and stain-free prior to application.</li> </ol>

<p><b>Installation Conditions</b></p>	<ol style="list-style-type: none"> <li>1. Ensure Area to be coated is climatized. If indoor space is not climatized please ensure the next two steps are monitored with appropriate tools such as a digital hygrometer and infrared thermometer.</li> <li>2. Ensure Ambient Temperatures are within 40° -90°F (Consult ACTECH Technical if temperatures are outside of these parameters)</li> <li>3. The concrete substrate temperature must be at least 5°F above the Ambient Dew Point to avoid/reduce the risk of condensation, which may cause adhesion failure or “amine blushing” on the product finish.</li> <li>4. Ambient Temperatures must be steady and/or falling, not rising.</li> </ol> <p><b>WARNING:</b> Do not apply if rain, high RH, or extreme temperature changes are expected during mixing, application or cure time of ACTECH 2170™ FC.</p> <p>The Installation conditions listed above must be followed during mixing, application and during the full cure of ACTECH 2170™ FC.</p>
<p><b>Mixing Instructions</b></p>	<ol style="list-style-type: none"> <li>1. Set the mixing station near the installation area. Use plastic or cardboard to protect the work area. Refer to the ACTECH Interior Application Procedures for complete installation details.</li> <li>2. Pour the entire contents of Part B (Hardener) into Part A (Resin) and mix for 3-timed minutes using a 300 - 400 RPM drill with a Jiffy mixer attachment.</li> <li>3. Best practice is mixing pail or “boxing” is recommended to ensure complete mixing of material from sides of cans, pouring some mixed material back into the B can, to harden all material. Do not discard any empty cans with uncured liquid.</li> </ol> <p>Do not turn cans containing leftover ACTECH 2170™FC upside down on the uncured coating surface. Liquid “half-moons”, drops, or splatters of unmixed material may interfere with proper curing.</p>
<p><b>Installation Instructions</b></p>	<ol style="list-style-type: none"> <li>1. <b>Single Coat as Primer:</b> immediately after mixing, pour entire contents of pail onto substrate (pot life is short, 10-20 minutes) spread using a flat or 12-14 mil notched squeegee to deliver a 12-mil minimum WFT, ensuring that proper coverage rates are achieved, leaving no uncoated areas. Back-roll the material using a 3/8” nap roller to ensure even coverage. (Use only roller covers that are lint-free and suitable for epoxies).</li> <li>2. <b>(Optional) Second Bonding Coat with Broadcast:</b> ACTECH 2170™ FC can be used as a bonding coat with a quartz or flake broadcast. Broadcast is ONLY to be done in second coat, never in first coat. Apply at approximately 200 sf/gallon and adjust spread-rate depending on broadcast media. Ensure a UV stable topcoat is used on top of the second coat of ACTECH 2170™FC.</li> </ol> <p><b>NOTE:</b> A first primer coat of ACTECH 2170™ FC with 12-mils over all high spots is required for moisture and alkalinity protection.</p>

	<ol style="list-style-type: none"> <li>3. Protect area from moisture, dirt, dust and foot traffic during cure time.</li> <li>4. Cure times: <b>1<sup>st</sup> Primer Coat:</b> ~ 4-hours or tack-free. <b>(Optional) 2<sup>nd</sup> Coat:</b> ~ 4-hours or tack-free.</li> <li>5. Always Consult ACTECH Technical for Application Parameters. Always consult ACTECH Technical Team if parameters are outside what is listed.</li> <li>6. Coating must be tack-free before applying any Subsequent coatings.</li> </ol> <p><b>NOTE: See Installation Guidelines/Procedures for full Installation Instructions.</b></p> <p><b>NOTE: If material pinholes or fisheyes contact ACTECH Technical Staff ASAP.</b></p>
<p style="text-align: center;"><b>Recoat Window (Between 2170 FC Coats)</b></p>	<p><b>Recoat Window Between 2170 FC Coats:</b></p> <p><u>Less than 7 Days:</u> Ensure surface is free of any amine blush and is dust and debris free. Solvent wipe if necessary.</p> <p><u>More than 7 Days:</u> Perform a light sanding with a swing-sander using 40-60 (or best) grit sandpaper or coarse scuff pad to remove gloss. Ensure that the surface is dust and debris free. Use a wipe with suitable solvent such acetone or denatured alcohol.</p>
<p style="text-align: center;"><b>Recoat Window (Other Systems)</b></p>	<p><b>Recoat Window for Other Systems Installed on top of ACTECH 2170 FC:</b></p> <p><u>Less than 72-hours:</u> Follow guidelines and recommendations for recoat times for products installed on top of ACTECH 2170™ FC. Ensure surface is free of any amine blush and is dust and debris free, solvent wipe if necessary.</p> <p><u>More than 72-hours:</u> To remove gloss, perform light sanding with a swing-sander using 40-60 (or best) grit sandpaper or coarse scuff pad. Ensure that the surface is dust and debris free.</p>
<p style="text-align: center;"><b>Health and Safety</b></p>	<p>Refer to SDS before handling product and ensure proper PPE is used. Do not expose skin, eyes or ingest ACTECH 2170™ FC. Store, transport and dispose of in accordance with SDS. If any personnel develop sensitivity to the material either cover bare skin or remove them from coating area. If any personnel develop negative reactions such as skin rash, difficulty breathing, eye irritation or other difficulties from the material, immediately remove from application area and seek proper medical attention.</p>
<p style="text-align: center;"><b>Questions?</b></p>	<p>The ACTECH Technical Team is always standing by for any questions regarding installation or product performance. Please contact us any time.</p>

ESTIMATED COVERAGE RATES		ACTECH 2170™ FC 2.4 GALLON UNIT	
First Coat Moisture & pH Mitigation at ~125 sf/gallon	~300 sf per unit (Ensure 12 mils over High Spots of		
For sand/flake broadcast in second Thin Coat at ~200	~480 sf per unit		
<p><i>*Approximate values for specification guidelines. Cure times are dependent upon ambient temperature and humidity at the job site.</i></p> <p><i>*Coverage rate may vary based on quality of concrete matrix, slab surface porosity, and consistency of concrete surface profile achieved during work.</i></p>			

APPLICATION PROPERTIES	
Pot Life (45°F / 75°F/ 90°F)	20 mins/15 mins/ 7 mins
Curing Time / Light Foot Traffic (45° / 60°F/ 75° F/ 90°F)	12 hours / 8 hours / 4 hours / ~3 hours
Minimum Recoat Time (45° / 60°F/ 75° F/ 90°F)	12hours / 8 hours / 4 hours / ~3 hours
Maximum Recoat Time (without light sanding) (45° / 60°F/ 75° F/ 90°F)	72-hours or by manufacturers guidelines on recoat
Full Cure – Full Chemical Resistance and Supports Heavy / Rolling	5 – 7 Days
Substrate Temperature (Consult ACTECH Technical Team if outside)	40° - 90° F
Application Humidity Dew Point	Slab Temperature + 5° F Above Dewpoint
Concrete Surface Profile (Consult ICRI 310.2R-13)	CSP 3 (New Concrete); CSP-4 (Existing Concrete)
Shore D Hardness	82 at 48 Hours
Mold Resistance	Does not Promote Mold Growth per ASTM G21

TECHNICAL DATA	
Mixing Ratio (A : B by volume)	2.43 : 1
Density (75° F)	1.10 g/cm <sup>3</sup>
Volume Solids	100%
VOC Emissions	0.000 g/l
Viscosity (75° F)	750 cps
Compressive Strength	14,500 PSI
Tensile Strength	4,300 PSI
Flash Point	>212 °F (Not Considered Flammable or Combustible)
Ignition Temperature	>662 °F
Shore D Hardness	82 at 48 Hours
Mold Resistance	Does not Promote Mold Growth per ASTM G21

**Warranties**

ALLIED CONSTRUCTION TECHNOLOGIES INC. (“ACTECH”) warrants this product for a period of one year from the date of installation to be free of manufacturing defects and to be consistent with its technical properties as stated in our current Technical Data Sheets, Material Labels, and published testing documents.

As a condition of this warranty, the ACTECH Primer must be used as directed in our product literature and within its stated shelf life. Shelf life is defined as two years from the original purchase date of the material **from ACTECH** when stored under proper environmental conditions as stated in the Product Data Sheet.

Our product recommendations are based on industry standards and testing procedures. All ACTECH Primers are sold on the condition that 1) the user is an experienced Professional Installer of Epoxy Coatings on Properly Prepared Concrete Surfaces, and 2) the user is experienced in selecting appropriate products and determining their suitability for the user’s own purpose before adoption.

Therefore, It is the buyer’s obligation to test the suitability of any ACTECH Primer for a planned application prior to using it. We assume no warranties written, expressed, or implied as to the workmanship of the installer, any specific methods of application, or the suitability of the product for a specific concrete slab under environmental conditions present at the time of installation.

ACTECH strongly recommends that the user install a Mock-Up / Test-Patch of the selected ACTECH Primer on the project site before proceeding with a full project application. The Mock-Up should then be tested (portable pull-tester) to determine whether there is acceptable bonding of the material to the substrate. The Mock-Up should also be used to test product compatibility (under site conditions) between the selected ACTECH Primer and the products to be installed on top.

ACTECH also strongly recommends that the user follow industry best practices in documenting environmental conditions during each stage of the epoxy primer installation -- and to record batch numbers of products installed and product usage rates -- so as to support a future warranty claim.

Any claim must be filed within 30 days of discovery of a problem and must be submitted with written proof of material purchase and installation dates. Failure to give timely notice of a claimed defect or to provide adequate proof of installation date shall constitute an absolute waiver of any claim.

Failure by the Buyer to furnish ACTECH with samples indicating material defect, photographs, or free access to the building for purposes of inspection shall constitute an absolute waiver of any claim.

ACTECH will (at our discretion) replace or refund the purchase price of any ACTECH Primer that is proven to be materially defective. This Limited One Year Material Warranty specifically excludes any labor costs incurred.

Notwithstanding any other provision in this warranty, ACTECH’s maximum monetary liability over the life of this warranty shall be an amount equal to the original cost of the ACTECH Primer to the Buyer. ACTECH shall not be liable for any consequential damages, down time/delay or liquidated damages due to product misuse, misapplication or sub-standard workmanship.



**FOR PROFESSIONAL USE ONLY.**

ALLIED CONSTRUCTION TECHNOLOGIES INC. MAKES NO WARRANTY AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED.

A 15-year Performance Warranty is available to eligible projects that have been pre-registered and approved by ACTECH before installation begins. (See ACTECH Approved On-Site Supervisor Form, ACTECH Pre-Job Survey, and Mock-Up Test Report). Additional warranty periods may be offered upon request.

**On-site visits and video conferencing by ACTECH personnel do not constitute a warranty or alleviate the applicator from any responsibility or professional due diligence.**

**FOR COMMERCIAL USE ONLY: KEEP OUT OF REACH OF CHILDREN & PERSONNEL NOT TRAINED IN ITS USAGE.**

*The information contained in this Technical Data Sheet is based on construction site experience and laboratory testing and is provided in good faith as reliable. However, it is the responsibility of the installer/applicator to determine the suitability of the substrate and the completeness of this information for a specific use. It is best practice to contact the ACTECH technical department for further information and the installation of a test patch before starting any project application. Our advice, verbal, written or based on test results, does not exempt the installer/applicator from exercising his own professional judgment or from adhering to construction industry standards. Always observe the installation recommendations of the final coating or floor covering manufacturer. Be sure the Material Safety Data Sheet and product literature is read and understood by all members of the crew. The publication of this Technical Data Sheet invalidates all previous versions.*

