



PRODUCT CATEGORY: SURFACE PREP

# LiquiTek™

ADVANCED, FIBER-REINFORCED, HYBRID, SELF-SMOOTHING & LEVELING UNDERLAYMENT

Ideal for bucket or barrel mixing | Extreme working time (up to 30 min.)

**DESCRIPTION:** LiquiTek™ is an advanced, fiber-reinforced, hybrid, self-smoothing and self-leveling underlayment used to resurface dry, interior, or distressed substrates when shot-blasting or diamond grinding is not possible.. It can be applied over gypsum underlayment, lightweight concrete, mud beds, structurally sound wood, asphalt, certain well-bonded floor coverings, cutback residue (no film), and other non-water-soluble adhesives with minimal surface preparation. The unique fiber-reinforced, gypsum/cement hybrid formulation of LiquiTek combines a super-smooth surface with extremely fast hydration, allowing non-moisture-sensitive installations of resilient and wood flooring in as little as 16 hrs. (See Self-Smoothing, Self-Leveling & Drying.) LiquiTek is 3500 psi in only 4 hours and 7500 psi at 28 days.

The Self-smoothing application of LiquiTek demonstrates increased fluidity, surpassing traditional self-leveling counterparts by up to 50%. This attribute yields an exceptionally uniform surface, exceptionally beneficial for sensitive floor coverings. This technology is faster and more economical than conventional self-leveling applications and hand patching methods.

## PRODUCT FEATURES:

- Uses CMP Formulated Technology™
- Extreme working time (Up to 30 minutes)
- Self-Smoothing (Up to 50% more fluid than traditional self-leveling)
- Creates a super smooth surface ideal for sensitive floor coverings
- Suitable for a variety of substrates and many Low-prep applications
- Ideal for bucket or barrel mixing applications
- Install common flooring in as little as 16 hours
- High compressive strength
- Prevents plasticizer migration when applied > 1/8" over non-water soluble adhesive residue
- Does not support the growth of mold
- May contribute points to LEED® projects
- Made in USA

## SUBSTRATE PREPARATION AND PRIMING BY SUBSTRATE

**GENERAL NOTE:** LiquiTek is not a vapor barrier and can only be used over dry substrates in areas that are not subject to excessive moisture. All slabs on grade must have a known, intact vapor barrier directly below the concrete or must have an application

of XL Brands LockDown MVB(TM) and a proper primer applied before using self-leveler. Test concrete per ASTM F1869 (for MVER) or ASTM F2170 (for RH).

Do not use LiquiTek if readings exceed 3 lbs. (MVER) or 75% (RH). Test other substrates for dryness as per applicable ASTM guidelines, using an approved moisture meter or per ASTM F2659.

Surfaces must be clean, sound, dry, above 50°F (10°C), and free of felt paper, oil, wax, grease, laitance, curing compounds and sealers, urethane, paint, loose flooring and patching material, or any contaminant that will act as a bond breaker. Never use acid or mastic removers on any surface to which an XL Brands product will be applied.

Mechanical preparation and removal can be hazardous. Methods such as shotblasting, grinding, and sanding may result in harmful airborne dust that can cause serious bodily harm. Please consult applicable government agencies for rules, regulations, and guidelines concerning practices for workplace and jobsite worker safety.

**FOR LOW-PREP APPLICATIONS:** Low-prep applications are generally areas that are not able to be shot blasted or mechanically abraded, such as applications over wood, lightweight concrete,

gypsum concrete, or mud beds. Substrate must be clean, solid, well bonded, free of non-water-soluble adhesive residues (follow/ use wet-scrape method [RFCI], where applicable), structurally sound, free of dirt, dust, debris, and other contaminants that may act as bond breakers (common examples are waxes and curing compounds), and are bondable surfaces. A bond test is recommended with AS-100™ and LiquiTek to confirm the products will not re-emulsify residuals in low-prepare applications.

XL Brands® eligible products for low-prepare applications are considered low shrinkage and have a (low) tensile pull that is optimized for this type of application (LP-1™, LiquiTek).

**GYPSUM UNDERLAYMENT AND ASPHALT:**

PREPARATION: Remove any degraded or hollow areas and vacuum thoroughly. If substrate exhibits excessive laitance, sand prior to vacuuming.

Note: Distressed substrates that will be subject to rolling loads over sensitive coverings such as sheet goods, should be resurfaced using the Self-Leveling Application method.

PRIMING: Dilute 1 part AS-100™ : 1 part water and apply a uniform coat using a pump-type sprayer. Backroll into the surface with a 3/8" nap roller. Leave no puddles or bare spots. Apply LiquiTek once AS-100™ is dry (1 hour min; 24 hrs. max.). If primer stays open longer than 24 hours, an additional coat is required. The resulting surface must have a thin, shiny, transparent film to proceed.

**CONCRETE:**

PREPARATION: Remove any degraded or hollow areas and vacuum thoroughly. If substrate exhibits excessive laitance, sand prior to vacuuming.

Note: Distressed substrates that will be subject to rolling loads over sensitive coverings such as sheet goods, should be resurfaced using the Self-Leveling Application method.

PRIMING: Dilute 1 part AS-100™ : 1 part water and apply a uniform coat using a pump-type sprayer. Backroll into the surface with a 3/8" nap roller. Leave no puddles or bare spots. The resulting surface must have a thin, shiny, transparent film to proceed. Apply LiquiTek once AS-100™ is dry (1 hour min.). If primer stays open longer than 24 hours, an additional coat is required.

**LIGHTWEIGHT CONCRETE AND MORTAR BEDS:**

PREPARATION: Remove any degraded or hollow areas and vacuum thoroughly. If substrate exhibits excessive laitance, sand prior to vacuuming.

Note: Distressed substrates that will be subject to rolling loads over sensitive coverings such as sheet goods, should be resurfaced using the Self-Leveling Application method.

PRIMING (requires two coats): The first coat should be diluted at 1 part AS-100™ : 3 parts water and applied using a pump-type sprayer. Spray a uniform coat and work into the surface immediately backrolling using a 3/8" nap roller or with an exploded-tip broom, leaving no puddles or bare spots.

PHYSICAL PROPERTIES			
<b>Packaging</b>	46 lb. bag, 48 bags per pallet		
<b>Color</b>	Off-white		
<b>Shelf Life</b>	12 Months		
<b>Water Requirements</b>	Self-smoothing 6.5 quarts (6.2 L) per bag Self-leveling 6 quarts (5.7 L) per bag		
<b>Approx. Coverage:</b>	1/8" (3.2 mm) coverage 50 ft <sup>2</sup>		
<b>46 lb. Bag</b>	1/4" (6.4 mm) coverage 25 ft <sup>2</sup>		
<b>Installation Thickness</b>	Self-smoothing 1/16" to 1/4" (1.6 to 6.4 mm)		
	Self-leveling 1/4" to 1" (.6 to 2.5 cm)		
	1/8" (3.2 mm) over highest point to feather edge		
	Up to 2" (5 cm) with proper extension (up to 25% extension)*		
<b>Installed Weight (Per Sq. Ft.)</b>	1 pound per square foot at 1/8" (3.2 mm)		
<b>Application Temperature Range</b>	50°F to 95°F (10°C to 35°C)		
<b>Working Time (70°F [21°C] @ 50% RH)</b>	30 minutes		
<b>Final Set Time (70°F [21°C] @ 50% RH) ASTM C191</b>	90 minutes		
<b>Accepts Coverings (70°F [21°C] @ 50%RH)</b>	See Drying Section Always test LiquiTek for dryness per applicable ASTM F2659 guidelines, using an approved moisture meter in multiple locations to confirm the underlayment is dry. <b>Note:</b> Thickness of application, mixing at higher (Self-Smoothing Application) water ratio, cooler temperatures, inadequate ventilation, and higher humidity can extend drying times..		
<b>Compressive Strength: ASTM C109 Modified Air Cured</b>	4 Hours	3500 psi	24.1 MPa
	1 Day	4000 psi	27.6 MPa
	7 Days	5000 psi	34.5 MPa
	28 Days	7500 psi	35.5 MPa
<b>Flexural Strength: ASTM C348 Modified Air Cured</b>	28 Days	1300 psi	9.0 MPa

\*Contact Technical Services or your sales representative for proper extension procedures.

After initial coat is dry (1 hour min.), apply the second coat of diluted primer using 1 part AS-100™ : 1 part water in a similar manner. Spray a uniform coat and backroll into the surface with a 3/8" nap roller. Leave no puddles or bare spots. The resulting surface must have a thin, shiny, transparent film to proceed. Apply Liqui-Tek™ once AS-100™ is dry (2 hours min.). If primer stays open longer than 24 hours, an additional coat is required.

**WOOD:**

PREPARATION: Sand down to clean, bare wood. Secure loose boards with deck screws and fill open seams with Dash Patch™. Subfloors must be min. 3/4" untreated, APA rated, tongue & groove, Type 1, exterior-grade plywood, and OSB or equal. The subfloor must be free of deflection (max. L/360), considering both live and dead loads. Tile and stone installations may have more stringent deflection requirements.

PRIMING: Apply one thin coat of AS-100™ (undiluted) using a 3/8" nap roller. Apply LiquiTek once AS-100™ is dry (1 hr. min; 24 hrs. max.). If primer stays open longer than 24 hours, an additional coat is required.

#### **ADHESIVE RESIDUE:**

PREPARATION: LiquiTek can be applied over cutback and thin (translucent), non-water-soluble adhesives that are sound, free of tack, and well bonded. Mechanically remove adhesives as much as possible. Adhesive cutback needs to be prepared using the wet-scrape method as outlined in the Resilient Floor Covering Institute booklet "Recommended Work Practices for the Removal of Resilient Floor Coverings." Remove any areas of loose patching material below the adhesive.

Note: Old cutback adhesives may contain asbestos. Mechanical removal can be hazardous. To prevent harmful dust, do not sand or grind adhesive residue. Asbestos dust inhalation may cause asbestosis and serious bodily harm.

Note: The fluid nature of a LiquiTek Self-smoothing application may make it difficult to maintain the > 1/8" (3.2 mm) required for preventing plasticizer migration. The self-leveling application method is recommended.

PRIMING: Apply one thin coat of AS-100™ (undiluted) using a 3/8" nap roller. Apply LiquiTek once AS-100™ is dry (1 hr. min; 24 hrs. max.). If primer stays open longer than 24 hours, an additional coat is required.

#### **VCT:**

PREPARATION: Existing VCT must be clean, sound, well bonded, and not exhibiting any signs of degradation due to excessive moisture. Remove any loose or damaged tile. Strip floor to remove all wax, sealer, or grease and do multiple rinse cycles to ensure removal of all stripper and contaminants. Allow the floor to dry completely.

PRIMING: Apply one thin coat of AS-100™ (undiluted) using a 3/8" nap roller. Apply LiquiTek once AS-100™ is dry (1 hr. min; 24 hrs. max.). If primer stays open longer than 24 hours, an additional coat is required.

**MIXING & INSTALLATION: SELF-SMOOTHING:** Self-Smoothing Application: Applied at a coverage rate from 1/16" up to 1/4" (1.6 to 6.4 mm). Do Not Overwater: Place 6.5 quarts (6.2 L) of clean, cool, potable water into a mixing drum for each 46 lb. bag.

**MIXING & INSTALLATION: SELF-LEVELING:** Self-Leveling Application: Applied at a coverage rate from 1/4" to 1" (.6 to 2.5 cm, or up to 2" [5 cm] with Proper Extension)

Do Not Overwater: Place 6 quarts (5.7 L) of clean, cool, potable water in a mixing drum for each 46 lb. bag.

Add the bags of LiquiTek while mixing at full speed with a mixing paddle attached to a heavy duty 1/2" drill (minimum 650 rpm). Mix for 2-3 minutes until lump free. Add no additional water and keep the mixing paddle immersed in the material to avoid entraining excess air. Contact XL Brands Technical Support for proper extension procedures.

Pour the blended LiquiTek out in a band, preferably across the shortest span of the pour, and disperse with a gauge rake. Use a spiked roller over the entire surface. Finish with a smoothing paddle if needed. For deeper pours over 3/8" (8.3 mm), leveling pins can be used to verify placement of material. Plastic athletic cleats should be worn when finishing to avoid leaving marks. LiquiTek will maintain its workability and healing for up to 30 minutes.

SUITABILITY OF THE APPLICATION: The use of Self-Smoothing vs. Self-Leveling must be determined by the installer. If resurfacing a distressed substrate and the intended use of the space will require rolling loads over sensitive coverings, such as sheet goods, the Self-Leveling Application method should be utilized.

**DRYING:** Always test LiquiTek for dryness per applicable ASTM F2659 guidelines, using an approved moisture meter in multiple locations to confirm the underlayment is dry. Thickness of application, inadequate ventilation, cooler temperatures, and higher humidity can extend drying times.

Note: Always consult with the floor covering or coatings manufacturer for proper adhesive selection and to confirm the maximum allowable moisture content that is acceptable for their product. Consult with the XL Brands technical service team or your sales representative to confirm the preferred application methods over gypsum-based underlayments..

**TESTING:** XL Brands recommends the use of a Tramex® CME/CMExpert type concrete moisture meter for testing of LiquiTek. The meter must be set to the gypsum scale, and the reading must typically be < 4% prior to application of conventional floor covering. Confirm maximum allowable moisture with the flooring or coatings manufacturer.

ACCEPTS COVERINGS: (After final set, 70°F [21°C] @ 50% RH)

Note: Based on Coverage Rates & Mix Water quoted for Self-Smoothing & Self-Leveling Applications.

A 1/4" of LiquiTek will typically achieve a moisture content of 4% at 16 hours using Tramex® CME/CMExpert type gypsum scale moisture meter in acclimated environments.

Non-moisture-sensitive adhesives and floor covering: 16 hrs.

Standard floor coverings with water-based adhesives: 16 hrs. (Confirm with flooring manufacturer.)

Moisture-sensitive flooring and adhesives: 24 to 36 hrs. (Confirm with flooring or coatings manufacturer.)

For ceramic tile and stone, follow TCNA F180, F200, or F200A Guidelines for Portland-cement-based thinset mortar installation over gypsum substrates.

DRYING: NOTE: Test as per ASTM D4263. Testing must be conducted under climatized conditions.

Finished floor-covering materials can be installed after LiquiTek has dried completely. Drying time will be a function of jobsite temperature, humidity, conditions, and installation thickness.

Maintaining temperature and adequate ventilation will greatly aid in drying. After 48 hours, place tests to check LiquiTek(TM) for dryness. Tightly duct tape all four sides of 18"x18" (45.7 cm x 45.7 cm) pieces of (3-4 mil) plastic in different locations. Conduct at least 1 test for each 1,000 square feet (92.9 square meters) of area. Let the tests sit undisturbed for 16 hours minimum, then lift the plastic and inspect for surface darkening. Darkening indicates moisture is still present and further drying time is required.

Note: During application, and for first 24 hours, prevent excessive air movement, but maintain adequate ventilation and protect material from direct sunlight. These variables can cause uneven curing patterns, a false set, or cracking.

#### **APPLICATION NOTES:**

- Expansion or isolation joints and working cracks must be reflected through LiquiTek.
- LiquiTek is self-curing. No wet curing methods or curing compounds should be used.
- Do not allow LiquiTek to come into contact with any metal construction elements or heating pipes. Tape, coat, prime, or caulk metal potentially in contact with the installation to prevent possible rust or corrosion.
- Always refer to the technical data sheet of any product referenced for its full instructions and limitations.
- Do not utilize moisture mitigation systems over LiquiTek.
- LiquiTek is intended for dry installations. Do not use in wet areas or areas constantly exposed to water. Do not install over substrates subject to hydrostatic pressure, permanent or intermittent substrate moisture.
- Do not use Portland-cement-based patching or skim coat materials directly over LiquiTek without priming with AS-100™. Apply one coat of diluted AS-100™ Primer using 1 part AS-100™ : 1 part water using a pump-type sprayer. Spray a uniform coat and backroll into the surface with a 3/8" nap roller. Leave no puddles or bare spots. The resulting surface must have a thin, shiny, transparent film. Alternatively, use Dash Patch™ for imperfections, leveling and tapering perimeter to elevations.
- Install Portland-cement-based tile mortar and mud beds using TCNA Installation Guidelines F180 (over plywood), F200 (for on-grade concrete), or F200A (for above-grade concrete).
- Mechanical preparation and removal can be hazardous. Methods such as shotblasting, grinding, and sanding may result in harmful, airborne dust that can cause serious bodily harm. Consult applicable government agencies for rules, regulations, and guidelines concerning practices for workplace and jobsite worker safety.

- Old cutback adhesives may contain asbestos. Mechanical removal can be hazardous. To prevent harmful dust, do not sand or grind adhesive residue. Asbestos dust inhalation may cause asbestosis and serious bodily harm.

**STORAGE:** Shelf life is one year from manufacturing date in unopened, original packaging. Must be stored in a cool, dry location, elevated (off the ground or floor) at temperatures between 40°F and 90°F (5°C and 32°C). Protect from moisture and excessive humidity. Do not expose to direct sunlight during storage.

**VOLATILE ORGANIC COMPOUNDS:** 0 g/L (as calculated per SCAQMD 1168)

**CLEANUP:** Clean tools with water immediately after use or by mechanical means once dry.

**HEALTH AND SAFETY:** Always refer to the Safety Data Sheet (SDS) prior to use for proper handling, cleanup, and spill containment. SDS may be obtained by calling 706-508-5907.

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