

TECHNICAL DATA SHEET- THIN SECTION OVERLAY SYSTEM

1. DESCRIPTION & USE

Xcel Surfaces THIN-SECTION OVERLAYMENT is a breathable, polymer modified, cementitious surfacing system designed for use on virtually any exterior or interior concrete substrate. Xcel Surfaces THIN-SECTION OVERLAYMENT can be applied in a variety of colors, textures and finishes. It produces an extremely durable, stain resistant surfacing system for concrete. When properly mixed and applied, Xcel Surfaces THIN-SECTION OVERLAYMENT will not shrink when setting, resists breakdown due to dampness and cures to an extremely durable surface that will not check, crack or break up and is freeze-thaw resistant. A typical application is 1/16" – 1/8" (.159 cm - .32 cm) in thickness.

Xcel Surfaces THIN-SECTION OVERLAYMENT can be used when doing conventional textures such as knockdown and broom finish, or can also be used to create custom surfaces to realistically simulate stone, tile, slate or any other type of natural material. Available in 5 colors, Xcel Surfaces THIN-SECTION OVERLAYMENT can also be pigmented or stained to produce an extremely attractive, durable, stain resistant surfacing system for concrete.

2. COMPOSITION

Xcel Surfaces THIN-SECTION OVERLAYMENT consists of the following proprietary components:

- 2.1. **TEXTURE MIX**- A very fine blend of silica sands, cement and special additives. Used as the scratch coat and texture coat.
- 2.2. **ACRYLIC ADDITIVE**- A 100% acrylic liquid polymer admixture for use as a bond coat and additive for Texture Mix.
- 2.3. **DRY COLOUR**- Dry colored pigment for use when integrally coloring Texture Mix.
- 2.4. **TOP COAT**- A low sheen, high-solids opaque colorant used with THIN-SECTION OVERLAYMENT, typically seen on knockdown textures around swimming pools.
- 2.5. **EFF-FACTOR**- A specialty hybrid emulsion designed to be used as an efflorescence inhibitor; can be used as a *bond coat* or sealer.
- 2.6. **AQUA STAIN**- A waterborne, translucent colorant designed for use on Xcel Surfaces overlayments and concrete surfaces.

3. PREPARATION

The concrete surface must be dry and free of all grease, oil, dirt, dust, curing compounds, sealers, coatings, efflorescence, old adhesive residues or any other foreign matter. New concrete should be cured for at least 7 days before applying Acrylic Additive *Bond Coat*; if using Xcel Surfaces **EFF-Factor** as a *Bond Coat*, overlayment can be applied next day. Clean concrete substrate using Xcel Surfaces **Citrus Cleaner** or **Degreaser**. Treat all cracks as necessary with Xcel Surfaces **Epoxy Crack Treatment**. Repair or replace any expansion joints prior to installation of overlayment. Repair any major spalling, chipping, voids or 'bird baths' using Xcel Surfaces **Deep Level** or **Fast Patch**.

4. MIXING

- 4.1. **SCRATCH COAT**- Using a clean 5 gallon (18.93 L) container, add 50 lbs. (22.6 Kg) of **Texture Mix** to approximately 2 gallons (7.57 L) of **Acrylic Additive** and mix with a variable speed drill and paddle. DO NOT OVERMIX. If integral color is desired, add the appropriate amount of **Dry Colour** to the mixture during the mixing process. Ensure all **Dry Colour** is thoroughly blended. LET SLAKE FOR 5-7 MINUTES; REMIX FOR APPROXIMATELY 30 SECONDS. (Do not add water. Always use **Acrylic Additive** for any adjustment to the mix.)
- 4.2. **TEXTURE COAT**- Using a clean 5 gallon (18.93 L) container, add 50 lbs. (22.6 Kg) of **Texture Mix** to approximately 1 1/2 gallons (6.6 L) of **Acrylic Additive** and mix with a variable speed drill and paddle. DO NOT OVERMIX. If integral color is desired, add the appropriate amount of **Dry Colour** to the mixture during the mixing process. Ensure all **Dry Colour** is thoroughly blended. LET SLAKE FOR 5-7 MINUTES; REMIX FOR APPROXIMATELY 30 SECONDS. (Do not add water. Always use **Acrylic Additive** for any adjustment to the mix.)

5. INSTALLATION

- 5.1. **BOND COAT**- Using a 3/8" – 1/2" (.95 cm-1.27 cm) nap paint roller, roll a thin even coat of **Acrylic Additive** onto the prepared concrete substrate. The *Bond Coat* can

also be applied via sprayer. DO NOT OVER APPLY.

- 5.2. **SCRATCH COAT**- Using a steel trowel or squeegee, apply a thin *Scratch Coat*, approximately 1/16" thick (.159 cm) directly on the bonded substrate. Allow the *Scratch Coat* to cure enough for general foot traffic. (Depending on substrate and ambient temperatures, cure time can vary from 30 minutes to a few hours.) **IMPORTANT: All existing substrate control joints must be honored.** Once the *Scratch Coat* has dried, prepare the surface by scraping any burrs or unwanted slag; blow clean or vacuum.
- 5.3. **TEXTURE COAT**- On the prepared *Scratch Coat*, directly apply the **Texture Mix** onto the surface using a hopper gun or trowel, depending on the desired texture, maintaining a consistent thickness of approximately 1/16" to 1/8" (.159cm-.32cm); lightly mist the scratch coat if working in warm, dry conditions to help cool the surface and eliminate accelerated moisture loss. DO NOT OVER TROWEL. After the *Texture Coat* has dried (preferably for 24-48 hours), Xcel Surfaces **Aqua Stain** is applied to the surface via sponge, roller or spray application for finishes like simulated stone and tile. Xcel Surfaces **Top Coat** is generally applied by roller over a 'lace' or 'knockdown' finishes. Use an approved Xcel Surfaces clear coat sealer to enhance coloring and provide a durable, protective surface. **CAUTION:** Do not apply **Texture Mix** in extreme temperatures. Substrate temperature should be between 45°- 95° F (7.2°-35° C).

6. SPECIFICATIONS

The data presented here is typical for XCELSURFACES mixed and placed at 77° F (23.9° C).

Compressive Strength: (ASTM C-109):
2699 PSI @ 3 days
3636 PSI @ 7 days
5027 PSI @ 28 days

Flexural Strength: (ASTM C-348):
1450 PSI @ 28 days

Tensile Strength: (ASTM C-190):
1518 PSI @ 28 days

Shear Bond Adhesion:
713 PSI @ 7 days

Accelerated Aging Test: (ASTM A756 D&E)
Unaffected
Freeze-Thaw: (ASTM C67)
No breakage/ <1% weight loss

Absorption Test: (ASTM D-570)
12.7%

Chemical Resistance: (ASTM D2299)
12 reagents.....unaffected

Impact Resistance: (mil D3134 F)
No breakage/ <.062 in.

Fire Resistance: (ASTM E108/ UBCSTD #32-7/UL 790.....Class A

7. PACKAGING

Texture Mix: 50 lbs. (22.68 Kg) bags; available in Cream, White, Gray, Sand and Brick Red.

Acrylic Additive: 5 gallon (18.93 L) and 1 gallon (3.79 L) containers; available in summer or winter formula.

Top Coat: 5 gallon (18.93 L) and 1 gallon (3.79 L) pails; available in 12 stock colors and custom tints.

Dry Colour: 5 lb. (2.27 Kg) and 1 lb. (.45 Kg) boxes; available in 11 colors.

Aqua Stain: 1 gallon (3.79 L) containers; available in 14 stock colors and a neutral base for custom tints.

8. COVERAGE

Texture Mix: As a *Scratch Coat*: Approximately 200 sq. ft. (18.58 sq. M) per 50 lb. (22.68 Kg) bag. As a *Texture Coat*: Approximately 75-150 sq. ft. (6.97 cm-13.94 cm), depending on texture.

Acrylic Additive: 150 – 200 sq. ft. (13.94-18.58 sq. M) per gallon when used as *Bond Coat*.

1. QUALITY CONTROL

Provide a job site sample prior to the installation for approval of color, texture and pattern. Consistent batching and finishing will ensure the uniformity of architectural concrete. Verify adequate wet and dry slip resistance

Xcel Surfaces products are intended for professional use only. Keep away from children. Xcel Surfaces warrants its products to be free of manufacturing defects and that they will meet the current published physical properties when applied in accordance with Xcel Surfaces directions and tested in accordance with ASTM and Xcel Surfaces standards. There are no other warranties by Xcel Surfaces of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Xcel Surfaces shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty, whether expressed or implied, including any warranty of merchantability or fitness for a particular purpose or from any cause whatsoever. Xcel Surfaces shall also not be responsible for use of this product in a manner to infringe on any patent held by others.

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