

## Description

**Concreation Self-Level Overlay** is a Portland cement based, ‘free-flowing’ topping for restoration or new construction of interior concrete floors. Concreation Self-Level Overlay can be applied from 6 mm to 38 mm (¼” to 1-½”) in a single pour, providing a smooth, flat and level floor without the need to float and trowel. **Concreation Self-Level Overlay** is recommended for interior residential, commercial and light industrial applications. For a superior long-lasting finish it is recommended to polish Concreation Self-Level Overlay to 400 grit or higher.

## Applications

- Interior sound concrete surfaces
- Uneven / unlevelled concrete floors
- Worn concrete surfaces
- Light duty wear surface

## Features & Benefits

- Free flowing consistence for easy leveling
- Minimal shrinkage and resistance to cracking
- High early strength
- Excellent bond strength

## Physical Properties

All data based on a mixing ratio of 2.75 L (2.5 qt.) per 22.68 (50 lb.) bag of dry mix at 21°C (70°F). Physical properties and typical values are not specifications.

Mixing Ratio:	2.75 L (2.5 qt.) of water per 22.68 Kg (50 lb.) bag
Coverage:	1.627 m <sup>2</sup> per bag @ 6.5 mm (18 sq. ft. @ ¼”) 0.836 m <sup>2</sup> per bag @ 12.7 mm (18 sq. ft. @ ½”)
Flow Time:	10 minutes
Initial Set (ASTM C191):	Approx. 30 minutes
Final Set (ASTM C191):	Approx. 90 minutes
Compressive Strength (ASTM C109/mod - Air cure only):	373 Kg/cm <sup>2</sup> (5300 psi) @ 28 days
Flexural Strength (ASTM C348):	70 Kg/cm <sup>2</sup> (1000 psi) @ 28 days
Walkable:	24 hours
Polishable:	7 days
Sealer Application:	LithoCon 15 Densifier: following 400 grit polish
Packaging:	22.68 Kg (50 lb.) net wt. bags.

Storage:	Store in a cool dry area. Do not leave bags exposed to sun or hot temperatures.
Shelf Life:	1 year if unopened.

## Mock-Up

Concreation Canada Inc. recommends a 3m x 3m [10' x 10'] mock-up be produced prior to the installation of the floor. The mock-up should be produced in compliance with installation instructions below.

## Direction for Use

### Surface Preparation

1. Wet grind the surface of the existing concrete with rotary or planetary type grinder equipped with 16 grit wet metal-bonded diamonds. Use a small amount of Concreation 750 cleaner in the grinding water to aid in cleanup. Use a wet vacuum to collect waste water and dispose of in compliance with local, provincial and federal laws.
2. Clean out cracks using an angle grinder equipped with a beveled 'V-Crack' chaser. Remove all dust & debris with a vacuum.
3. Apply a 20:1 dilution of Concreation 750 Cleaner the surface of the floor and scrub with a floor maintainer equipped with a brush-type head. Rinse with fresh water using an auto scrubber equipped with a brush-type head. Collect waste water and dispose of in compliance with local, provincial and federal laws. Allow to air dry

### Crack Repair

1. Mix Concreation Filler Epoxy, use a paint brush to apply Concreation Filler Epoxy ensuring complete coverage of the entire crack.
2. Apply fiber tape to the Concreation Filler Epoxy inside the cleaned out cracks.
3. Mix Concreation Filler Epoxy, use a steel concrete trowel to apply Concreation Filler Epoxy inside the crack. Be sure to not leave high spots or hard edges, feather the edges using the steel concrete trowel.

### Bond Coat Application

1. Apply fiber tape over all expansion cuts and mark to enable re-cutting after Concreation Self-Level Underlay has been installed. These will be re-cut once the Concreation Self-Level Underlay application has been completed.
2. Mix Concreation Bond Coat (6L [6.34 qt.] water: 1 bag Concreation Bond Coat), allow to false set for 10 minutes and remix. For the first application surface should be coated with a light fog of water in 100-200 sq. ft. sections at a time.
3. Pour Concreation Bond Coat along the starting edge over the water-dampened surface. Spread the material as thin as possible, less than 1/16" next to the starting edge using a metal edge squeegee. Squeegee the material from side to side in straight rows to cover the surface and achieve as smooth of a finish as possible. Press firmly on the squeegee and overlap each pass half way as you make the next pass and so on. Use Concreation Bond Coat & Broom Finish to fill in low spots, level an uneven surface or re-pitch areas with improper drainage. Allow minimum 2 hours drying time before proceeding.

4. If there are any ridges or squeegee marks left from the first coat grind these smooth before continuing.

#### Self-Level Overlay Application

**\*FOR APPLICATIONS OVER 25.4MM (1") AGGREGATE 3.2MM - 9.5MM (1/8" - 3/8") CAN BE PREPLACED OVERTOP OF WET CONCREATION BOND COAT PRIOR TO APPLICATION OF CONCREATION SELF-LEVEL UNDERLAY TO INCREASE COVERAGE.**

1. The following steps require the installer to wear spiked shoes to walk on the soft concrete throughout the Concreation Self-Level Underlay application.
2. Mix Concreation Bond Coat (6L [6.34 qt.] water: 1 bag Concreation Bond Coat), allow to false set for 10 minutes and remix.
3. Mix Concreation Self-Level Underlay (3.79L [4 qt.] water: 1 bag Concreation Self-Level Underlay), mix thoroughly until lump-free, do not add more water. Concreation Self-Level Underlay has a flow time of approx. 15 minutes, if the material has not been applied in this period remove and dispose of in compliance with local, provincial and federal laws. Areas over 9m<sup>2</sup> (100 sq. ft.) should be applied via pumping apparatus, for more information please contact Concreation Canada Inc.
4. Apply second coat of Concreation Bond Coat, another person should have Concreation Self-Level Underlay ready to immediately apply over the wet Concreation Bond Coat. Use the gauge rake to quickly spread the Concreation Self-Level Underlay 9.5mm (3/8") thick over the wet Concreation Bond Coat. Use the gauge rake to work the material from side to side in straight rows to cover the surface and overlap each pass half way as you make the next pass and so on, do not allow cold joints to form. The person using the gauge rake should wear spiked shoes to be able to walk in the wet bond coat and stamping mix while spreading. When working next to the edges keep the end of the gauge rake 25.4mm (1") away from the edge and allow the Concreation Self-Level Underlay to flow out of the end of the gauge rake to cover the edge. This will prevent the end of the gauge rake from slipping off the edge and leaving the Concreation Self-Level Underlay too thin. It is important to have at least 6.3mm (1/4") of thickness over the whole floor surface. Concreation Self-Level Underlay will flow into and fill the lines and holes left by the gauge rake and spiked shoes.

#### Cutting Application

1. Concreation Self-Level Underlay must be soft cut 24 hours after installation. Re-cut over existing expansion joints using a wet or dry soft cut saw.
2. Remove all dust & debris with a vacuum.

#### Cleaning Application

1. Apply a 40:1 dilution of Concreation 750 Cleaner the surface of the floor and scrub with a floor maintainer equipped with a scrubbing pad. Rinse with fresh water using an auto scrubber equipped with a scrubbing pad. Collect waste water and dispose of in compliance with local, provincial and federal laws. Allow to air dry.

#### Precautions

- No admixtures should be used without the prior written consent of Concreation Canada Inc.
- Store in a cool dry place
- Ambient air temperatures must maintain a minimum of 4°C (40°F) within 72 hours of installation.

- Do not allow to freeze within 7 days of installation/
- Not for use in freeze/thaw environments