

# DEEP LEVEL



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<http://www.surecretedesign.com/deep-level/>

# DEEP LEVEL

## DESCRIPTION

**Deep Level** is a single component, cement-based patching compound that goes from 1/8" – 2" (.32 - 5 cm) and up to 4" (10 cm) with the addition of # 8 pea gravel. **Deep Level** requires **SureBond** (see TDS) to create superior bonding power. It was designed for patching larger spalls in concrete floors, building ramps, repairing loading docks, and parking lot pavement, and performs well in filling low spots on horizontal surfaces. The silicate aggregate size will not allow a feather edge, but will eliminate the common shrink cracks associated with topping mixes used for repairs.

## SURFACE PREPARATION

The principles for surface preparation for **Deep Level** are aligned with other cement-based overlays placed on concrete and remain constant; the substrate must be:

1. **Clean:** The surface must be free of dust, dirt, oil, grease, paints, glues, sealers, curing agents, efflorescence, chemical contaminants, rust, algae, mildew and other foreign matter that may serve as a bond breaker.
2. **Cured:** Any concrete must be sufficiently cured to have sufficient hydration, approximately 7 - 14 days depending on temperatures and humidity.
3. **Sound:** No system should be placed upon concrete or an existing cement-based overlay that is flaking, spalling, or has hibernating spalling.
4. **Profiled:** Proper profile should follow the standard established by the International Concrete Repair Institute (ICRI) Technical Guideline no. 03732 for Concrete Surface Profile (CSP). The established profile is categorized as CSP-1 through CSP-4.

The most common means to properly profile many concrete slabs (especially exterior slabs) is through the use a pressure washer equipped with a turbo-tip and the use of **SCR** (see **SCR** TDS). Some concrete slabs that are hard troweled or that are not sound may require more aggressive profiling through diamond grinding or shot blasting.

Customarily profiling is not required for application over another cement-based overlay.

## TEMPERATURE/CURE

1. Air and substrate surface temperatures shall remain between 50°F (10°C) and 90°F (32°C) during and within 48 hours of placement.
2. No precipitation should occur during or within 48 hours of placement.
3. Avoid high heat and / or windy conditions. Attempt to minimize application during such harsh conditions by working during cooler hours. Keep materials shaded prior to mixing, running water until cool, and setting up temporary walls for wind blocks.
4. Interior applications and cool, shaded areas will take significantly longer to cure.



## PACKAGING

50 pound (22.7 kg) bag

## MIXING RATIO

3 - 4 qt. (3.8 liter) water to 1 – 50 pound (22.7 kg) bag of **Deep Level**

## COVERAGE

1 - 50 lb. (22.7 kg) bag of **Deep Level** = approximately .46 ft<sup>3</sup>  
OR 11 ft<sup>2</sup> @ 1/2" (1 m<sup>2</sup> @ 13 mm)  
OR 5.5 ft<sup>2</sup> @ 1" (.5 m<sup>2</sup> @ 25.4 mm)

## DENSITY

132 pounds/ft<sup>3</sup> (2113 kg/m<sup>3</sup>)

## COMPRESSIVE STRENGTH ASTM C-109

28 Days 5000 PSI (34474 kPa)

## FLEXURAL STRENGTH ASTM C-348

28 day 550 PSI (3792 kPa)

## TENSILE STRENGTH ASTM C-190

28 day 890 PSI (6136 kPa)

## ABRASION RESISTANCE ASTM C-944

7 days 1 gram lost

## SHELF LIFE

Under normal conditions: when kept dry and moisture free, out of direct sunlight, the shelf life of an unopened bag is (12) months from the date of purchase. Storage must be under roof and off the floor. Rotate inventory to maintain product that is within limits

5. This product will cure similar to concrete. Depending on weather conditions, it may achieve initial set within 6 – 8 hours. Like concrete full cure is reached at 28 days.

## APPLICATION

### **Crack Treatment / Construction Joints**

Cracks may require treatment: Refer to **SCT-22 Crack and Spall Treatment** and **SCT-EP Epoxy Crack Treatment** TDS to evaluate crack as static or structural to set expectation of treatment.

**Deep Level** may fill large voids created by random cracking, but large or structural cracks have sufficient movement to "telegraph" through **Deep Level** applications. Likewise, bridging construction joints in concrete will also "telegraph" through **Deep Level** applications.

### **Mixing and handling**

1. Add water, approximately 3 qt. (2.8 liter) to a 5 gal. (18.9 liter)
2. Slowly introduce **Deep Level** into the pail with mixer running. Mix with a handheld concrete mixer, such as an Eibenstock model #EHR 20R or a 1/2" (12.7 mm) 450 – 600 rpm drill equipped with a cage mixing blade. (Larger amounts may be mixed utilizing a mortar mixer.)
3. Scrape side of pail with a margin trowel to ensure all dry product is incorporated into the wet mix.
4. Continue to mix for a minimum of 1 minute after all in-

redients are combined to achieve a lump-free consistency. Additional water may be added up to a total of 4 qt. (3.8 liter) water to 50 pound (22.7 kg) bag.  
5. Patches in excess of 2" (5 cm) up to 4" (10cm) require the introduction of # 8 pea gravel (3/8 - 1/2" [9.5 - 12.7 mm]) at the rate of 10 pounds (4.5 kg) pea gravel to 1 - 50 pound (22.7 kg) bag of **Deep Level**.

### Base Coat

1. The surface should be saturated, surface dry (SSD or damp, no puddles).
2. Apply **SureBond** see TDS

### Deep Level / Patching Coat

1. While **SureBond** is still wet, apply **Deep Level**.
2. Trowel / squeegee product tightly into patched area.
3. If patching requires feathering to an existing smooth surface, the height of deep level should be 3/8" short of desired finish to allow for final topping.

## CAUTIONS

**KEEP OUT OF REACH OF CHILDREN. Inhalation:** Avoid prolonged breathing of airborne dust, particularly present during mixing. Use NIOSH approved respirator for nuisance if threshold limit values are unsafe. **Skin Contact:** **Skin contact** may cause irritation. Remove contaminated clothing and wash affected skin with soap and water. Launder clothing before reuse. If symptoms persist, seek medical attention. **Eyes:** Wear safety eye protection when applying. Contact with eyes may cause irritation. Flush eyes with water for 15 minutes. If symptoms persist, seek medical attention.

## SAFETY DATA SHEETS

The following are links to all available safety data sheets related to this product:

- [surface-prep-deep-level-sds.pdf](#)

## SLIP RESISTANCE

Two recognized US agencies have issued directives on minimum coefficient of friction, OSHA (Occupational Safety and Health Administration) and Department of Justice through the ADA (Americans with Disabilities Act). ADA is the more stringent of the two. ADA directs that accessible walkways have a minimum coefficient of friction of 0.6. Ramps have been directed to be 0.8. The applicator assumes the responsibility to meet these standards. Especially exterior surfaces or surfaces that may become wet, oily, or greasy require attention. Refer to spec. sheets on **SureGrip (Additive)** and its accompanying coefficient of friction table.

## SUITABILITY SAMPLE

Always prepare an adequate number of test areas, including wear protection system and aesthetic suitability for products' intended use.

## CLEAN-UP

Before **Deep Level** dries; spills and tools can be cleaned up with water.

## DISPOSAL

Contact your local government household hazardous waste coordinator for information on disposal of unused product.

## LIMITATIONS

For use by trained professionals that have read the complete SDS.

## WARRANTY

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replacement of product (if defective), at manufactures/seller's option. Sure-Crete Design Products shall not be liable for cost of labor or direct and/or incidental consequential damages.