

# Stamp Concrete Overlay

Durável SOM is an easy-to-use polymer modified cement coating system that will create beautiful stamped concrete surfaces over existing bare concrete. Use OCP overlay color packs to create the base concrete shade, then utilize In-Fluence water base stains to create natural-looking surfaces such as stone, slate, brick, cobblestone, wood plank, and many other textures. Works with common hand tools and with stamp texture tools designed for stamp overlay coatings. Durável SOM may be installed on both interior or exterior projects and is suitable for freeze-thaw climates. With a compressive strength over 4500 psi, Durável SOM is suitable for pedestrian or vehicular traffic in residential and commercial settings. Durável SOM can be added to any sound, non-moving, and clean concrete with minimal height gain. Available in cool weather and warm weather formulas.

## Typical Uses:

- **Patios and Pool Decks**
- **Driveway Entrances and Walkways**
- **Commercial Properties**
- **Custom Carved Patterns**

## Product Advantages :

- **User Friendly Just Add Water Mix**
- **Excellent Texture Detail**
- **Freeze-Thaw Compatible**
- **Suitable for Vehicular Traffic**
- **Minimal Height Gain**

50 lb (22.7 kg) bags (approx. 0.46 CF)

Warm and Cool Weather Formulas

Water Demand 3.5 to 4.0 Qt

Pot Life 20-25 minutes (70 deg F)

Initial Set 4 to 8 hours

Full Cure 28 days

Application range 45 to 90 deg. F

## Coverage:

17 square feet per bag at 3/8" thick for use with pattern mats

23 square feet per bag at 1/4" thick for use with texture skins

## Directions for Use:

### Substrate Preparation:

**SOUND:** Concrete that is failing due to poor placement or extensive environmental abuse should be replaced, not repaired. Cracks and joints in concrete should always be treated as moving, with the possibility they will continue moving after the overlay or repair mortar is placed leading to cracking of the overlay. Expansion and contraction joints must always be honored since they allow movement in the slab. Large holes and divots in the surface should be filled in lifts, or with a suitable material. Flexible joint sealant should only be applied after the overlay is completed and cured. Expectations should be set with the client prior to commencement of the project so they understand that the overlay, when bonded properly, will move as the concrete substrate moves.

**FOR PROFESSIONAL USE ONLY**

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**CURED:** All concrete must be sufficiently cured to allow for proper hydration. The recommended cure time is 28 days, depending on temperature and humidity.

**CLEAN:** Surfaces to be overlaid should be free of contaminants and readily accept water. All potential contaminants on the surface must be removed, including but not limited to: dust, dirt, oil, grease, paints, glues, sealers, curing agents, releases, efflorescence, chemical contaminants, rust, or algae. Even if grinding is the selected method for preparation, it is critical to clean the surface first to keep from pushing contaminants into the pores of the concrete during the grinding process. Surfaces must be completely cleaned after the mechanical preparation process; remove all dust.

**PROFILED:** Acid etching is not an acceptable option for smooth or power troweled concrete surfaces. A water drop test should be performed to make sure water quickly penetrates the surface and darkens it. If water beads on the surface for longer than 15 seconds the concrete is not porous enough and must be mechanically profiled by shot blasting or diamond grinding. Concrete must be profiled to a CSP-2 or CSP-3 for proper bonding.

**ENVIRONMENTAL CONDITIONS:** The substrate temperature during application and curing must be between 45 and 90 deg. F (7 and 32 C). Excessive wind and/or sun exposure may adversely affect hydration and cure. Schedule exterior work to protect overlay from rain for twelve hours after application is completed.

## Mixing Instructions:

Mix single bags in clean 5-gallon pails with a helical mixing blade. Add 3.5 to 4.0 quarts of water per bag of mix; water demand varies with environmental conditions and application technique. For best results and longest pot life use clean, cold water. Run hot water out of hoses prior to use or fill buckets with water at the beginning of the day so all the mixes are at the same temperature. Keep bags cool and do not store them in direct sunlight. Always measure water into mixing vessel so that each mix is consistent. When applicable, add the contents of one Overlay Color Pack to the water and thoroughly blend prior to adding the bag mix material. While slowly mixing add the bag contents to the mixing bucket then blend to a lump-free consistency. Make sure to scrape any unmixed product from the sides and bottom of the mixing vessel as you work. Once all powder is wetted out continue to mix for 2 minutes to ensure a complete blend of the product. Blended material should be applied promptly and kept out of direct sunlight (if possible) to extend working time. If the product stiffens in the bucket, spin the product with the mixer. Do NOT add more water! Dispose of the product if spinning it again does not make it workable.

## Tinting Instructions:

Durável SOM is manufactured with white cement. Add one Overlay Color Pack to the mix water and blend thoroughly before adding the bag mix

## Application Instructions:

Durável SOM requires a bond coat of Durável LBA. Follow the application instructions on the LBA technical data sheet.

When the LBA is partially dried and tacky, pour blended Durável SOM directly onto the surface. While wearing spike shoes, use a cam rake or gauge rake set to the appropriate depth to spread the product evenly. Follow with a flexible trowel or smoother to remove rake lines from the surface. Avoid displacing the product while smoothing which can cause thin and thick areas. Maintaining a consistent thickness is critical for best performance and finish.

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Allow time for Durável SOM to start to set up. Test the product for plasticity by pressing on the surface with your finger. When the product is indented by touch but does not stay stuck to the finger it is time to start stamping. The surface must be treated with Durável Liquid Release prior to stamping. Use a pump sprayer to apply a light coat of Liquid Release on the overlay surface and on the stamping texture tools. Note that many other concrete liquid release products may damage the surface. Do not allow Liquid Release to puddle or pond. Place the texture tools on the surface when it is ready to support weight. Gently walk on the mats to make sure the surface is not too soft. Walk in the texture tools in one at a time while progressing across the project. The best method is to walk in the surface of the stamp thoroughly while feeling the material movement under foot. Lift a corner of the stamp to ensure a good impression before moving the stamp to its next position. When relocating stamps be careful to lift them straight in the air. Rolling a stamp on its edge will scoop out the overlay material and cause a blemish in the finished surface. Do not use a concrete tamper; aggressive tamping will cause the overlay to lose its bond to the substrate.

Note that the texture of some concrete stamps and pattern mats may be too aggressive for use with overlay.

Allow Durável SOM to dry just long enough that it can be walked on without damage. Use hand tools to clean up joints as needed, or to create original patterns by carving grout lines. If the overlay is allowed to set too long hand carving will not be possible. Sweep off any excess material, then clean the surface with a 4:1 dilution of Durável ECP (4 parts water, 1 part ECP) to remove any Liquid Release residue. Spray the ECP solution with a pump sprayer, brush with a soft bristle brush, then rinse with clean water from a hose. Do not use a pressure washer.

Secondary Color: Apply one or more colors of In-Fluence water base stain for secondary colors as desired. Different dilutions of In-Fluence may be used to create natural coloration. Follow the TDS for In-Fluence stain for further instructions.

Do not apply Durável SOM in locations which are permanently submerged.

## Tips and Precautions:

**Staging Area** – Set up a staging space next to the work area where you can change into clean shoes and spikes. This keeps you from tracking contaminants onto the prepared substrate.

**Mixing Location** – Setting up a mixing station in a shaded area is best for the product and for the worker. Keeping the bags out of the sun helps keep them from getting too hot, which could cause the same problems as using hot water. Stay in the shadows of trees, buildings, or a pop-up tent. Don't mix in the middle of a concrete or asphalt pad! In the cooler months you can allow the bags to warm in the sun to help decrease the drying time of the product once placed on the ground.

**Surface Temperatures** – Working on the right substrate temperature is critical to success. Most overlays and repair mortars have a working temperature range from 50 to 90 degrees F for the substrate, not the air temperature. These systems need time to dwell and soak into the porous surface and create a secure chemical and mechanical bond. When the surface temperature is above 90 degrees the product will set and dry faster; the faster the coating dries, the less time it has to properly bond to the surface, which can lead to early failure. On hot days start your work early and stop when the concrete gets too hot. In cooler weather substrate temperatures can drop below 50 degrees. Cold concrete can hold too much moisture and inhibit the overlay or repair mortar from soaking in and bonding. If the product does not fully dry before the sun sets, freezing temperatures or frost can cause the coating to freeze and fail. When working in cooler temperatures, wait until the substrate temperature is rising above 50 degrees stop work in time for the product to completely dry before the air temperature drops below freezing.

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**Water Temperature** – Having consistent water temperature is important to a successful installation. One of the most common mistakes installers make is when using hose water. When a hose sits out in the sun the water in that line gets HOT! Hot water will greatly reduce your working time, and the product can even start to set up in the bucket. Each time you use a hose first run the water for 60 seconds to get a consistent temperature water for each batch. One trick that works well is to set aside several clean empty buckets when you are setting up to blend. Fill enough buckets with water so no hose water is needed during the installation. This way each mix made from the bucket water will be at or near the same temperature.

**Measure Water Accurately** – Use a graduated measuring container to make sure the same amount of water is mixed in each batch every time to give you consistency in the mixes and color. Measure the water on a level surface, like a bucket turned upside down and made a flat as possible, then measure in the same place each time. For even better consistency make a dedicated measuring pail: cut a drain hole in the side of a 5-gallon pail to set the water level, making it impossible to put too much water in the mix.

**Proper Mixing** – The best paddle for mixing cement overlays and repair mortars is a helical paddle attached to a 1/2" drill or a two-handled mixer designed for mortar mixing. Always put the measured water in the mixing bucket first, then the overlay color pack (if used), then add the bag mix. A good strong mixer can wet out a full bag in less than a minute. Once the product is wetted out, sweep the sides and bottom of the bucket with the mixing paddle or margin trowel to loosen any dry material stuck to the bucket, then mix the product for two more minutes to ensure a thorough mixing of all the components.

**Do Not Add Water** – After the mix is blended and you're in the process of placing product on the surface, do not take it back and add more water if it gets stiff in the bucket. This will just accelerate the hardening of the product in that pail since the chemical reaction has already started. If you mix a bag of product and immediately realize that you need to add water, that is the correct time to add it. Waiting till you have been using it for a while is not! These mixes can be loosened up in the bucket by spinning it with the mixing paddle. This will provide a bit more time. If the mix stays stiff, discard it and make a new bag. Do not force product that has started to set onto the surface!

**Application** – Only pour out of the bucket what can be use on the ground in two to three minutes. Unlike epoxy, cement overlay products can rest in the mixing bucket. Putting too much material on the ground at one time can lead it to be worked too many times. The wet overlay or repair mortar is drawn into the substrate as it is being pulled across the work surface. If too much product is placed on the ground at one time, it can get worked back and forth and turn into a paste of mostly aggregate. If that happens remove the paste from the surface – do not add water!

## Clean Up:

Clean tools and mixing vessels with water. Capture runoff as necessary to protect downstream surfaces. Remove wet material from adjacent surfaces before it dries. Dried material may be loosened with Concrete Eraser or light acids; test an inconspicuous spot to ensure that the surface is not damaged by the cleaning process.

## Maintenance:

Durável SOM must be finished and protected with Duravel DV-30 or other clear sealer. Follow the maintenance interval instructions for the selected sealer listed on its TDS.

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## Cured Physical Properties:

The concrete industry switched from Portland Cement to Portland Limestone Cement (ie Type II) in late 2022. All Durável cementitious mixes are formulated with PLC, and all data listed is from tests performed on current formulas. Use caution when comparing performance data to other products that may be out of date. See <https://www.duravel.com/portland-cement-now-portland-limestone-cement-plc/> for more information about PLC.

Initial Set: ASTM C-266, 250 to 300 minutes (varies with temperature)

Final Set: ASTM C-266, 360 to 480 minutes (varies with temperature)

Compressive Strength: ASTM C-109, 4910 psi at 7 days (33,853 kPa)

Flexural Strength: ASTM C-580, 820 psi at 7 days (5,654 kPa)

Tensile Bond Strength: ASTM C-1583, 315 psi at 7 days (substrate failure)

Abrasion Resistance: ASTM 4060, at 7 days 2.5g loss

Freeze-Thaw Cycling: ASTM C-666M, 50 cycles PASS

## Slip Resistance Disclaimer:

**Notice:** The Occupational Safety and Health Administration (OSHA) and the American Disabilities Act (ADA) have set enforceable standards for slip-fall protection on walking surfaces. The ADA standards are the more stringent and require a minimum coefficient of friction (CoF) on level walking surfaces of 0.6 and on ramped walking surfaces of 0.8. The system applicator/ end user assumes all responsibility to provide a flooring system that meets all current safety standards. Neither Durável nor its selling agents will be responsible for any injury that may be incurred in a slip-fall accident. Furthermore, Durável recommends the use of slip-resistant aggregate in all coatings or floor systems that could possibly be exposed to wet conditions or become contaminated with oils, grease, or other potential lubricants.

## Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from moisture.

## Disposal:

Recycle and/or dispose of contents and containers in accordance with local, regional, national, and international regulations.

## Shelf Life:

Up to one year from original manufacture date when stored in its original, unopened container at room temperature. May be extended with reasonable care.

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## Limitations:

This product is not intended for public use and is intended for use by qualified contractors and installers with proper experience and training in the use of these products, and that have read the complete safety data sheet. Apply product only when substrate and ambient temperatures are within the accepted range.

## Warranty:

IMPORTANT!

Before using any Durável product, read and understand its accompanying Safety Data Sheet & Application Instructions for important safety information.

STANDARD TERMS AND CONDITIONS OF SALE, INCLUDING STANDARD WARRANTY APPLY – VISIT [Durável.com](http://Durável.com) FOR THE LATEST VERSION.

## Disclaimer:

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Durável assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Durável assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety precautions are followed.

## Safety Instructions:

### For Professional Use Only

### Keep Out of Reach of Children and Animals

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation.

Obtain, read and follow all safety instructions before use. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands and exposed skin thoroughly after handling. Wash hands thoroughly after handling. Do not touch eyes. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: wash with plenty of water and soap. IF ON SKIN: Take off Immediately all contaminated clothing. Immediately rinse with water for several minutes. If skin irritation or rash occurs: Get medical help. Take off immediately all contaminated clothing and wash it before reuse. Wash contaminated

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clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. Get medical help if you feel unwell. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get emergency medical help.

**PROP65 WARNING:** This product contains chemicals known to the state of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Always Review SDS & Technical Data Prior to Use**

