

## Thin Concrete Overlay

Durável TCO is an extremely flexible Micro-Topping overlay that can be used for interior and exterior applications on horizontal and vertical surfaces. This is where imagination and functionality meet. Durável TCO can be used to create a fresh flat surface or unique texture on old tired and worn concrete. This fresh canvas can be colored integrally using Overlay Color Packs as a great basis for design. Then with some imagination, creativity and In-Fluence stain, an extremely durable new and beautiful surface comes to life like no other.

Durável TCO is a heavy-duty decorative texture cement overlay system which is designed to beautify old and new concrete alike. Using the latest single component technologies, Durável TCO has been engineered to lead the industry in compressive strength, durability, adhesion, as well as ease of use. Durável TCO is a self-bonding add water only white or gray Portland cement-based composite that can be integrally colored in the field. Durável TCO can be applied using conventional concrete tools such as metal squeegees and assorted hand trowels. Textures are created using trowels, squeegees, brooms, brushes, and sponges. Texture options include, but are not limited to Smooth, Stenciled, Wood Finish, Venetian Plaster, Stippled, Slate, and many more. With the combination of Overlay Color Packs and a variety of In-Fluence stains, the imagination becomes the limit. Durável TCO will handle all residential and light commercial traffic.

### Range of Textures:

- Smooth
- Stencil and Grout Designs
- Wood Look
- Venetian Plaster
- Slate Texture
- Fresh Stainable Canvas

### Product Advantages:

- High compressive strength
- Just-add-water formula
- Range of color options
- Range of texture options
- Resists freeze-thaw cycling
- Replaces a worn and tired concrete surface
- High level of polymer for maximum flexibility and bond strength

### Water Demand:

4 to 5.5 Qt (3.8 to 5.2 L)

### Cure Times:

Initial Set - 2 to 6 hrs.

Full Cure - 28 days

### Pot Life:

30 mins.

### Application Temperature:

45° to 90° F (7° to 32° C)

### VOC:

Less than 10 g/L

### Packaging:

40 lb (18.1 kg) bags (approx. 0.40 CF)  
Gray and White Formulas

**FOR PROFESSIONAL USE ONLY**

# Technical Data Sheet

## Coverage:

Durável TCO is designed for a thin application. After the substrate is properly profiled and prepared, if there is a significant damage to the surface such as spalling or pits, a base coat of Durável TRO is highly recommended to repair the damaged surface. Coverage of TCO can vary greatly depending on the texture to be created. It can range from 100 sq ft per bag for detailed and intricate texture coats to 300 sq ft per bag for smooth fine finishes.

## Storage:

Store in a secure location, accessible by authorized persons only. Protect from contact with water, moisture, and humidity. Keep out of reach of children. Store away from food and animal feed. Keep away from incompatible substances such as strong acids. Wet Portland cement can cause severe chemical burns; do not get inside clothing, boots, shoes, or gloves.

## 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 is placed, leading to cracking of the overlay. Expansion 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 sealants should only be applied after the overlay is completed and cured. Expectations should be set with the client before the commencement of the project so they understand that the overlay, when bonded properly, will move as the concrete substrate does.

**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, sealer, curing agents, releases, efflorescence, chemical contaminants, rust, or algae. Even if grinding is the preferred preparation method, it is critical to clean the surface first to keep from pushing contaminants into the pores of the concrete during the grinding process.

**PROFILED:** Acid etching is not an acceptable option for smooth or power-troweled surfaces. A water drop test should be performed to ensure water quickly penetrates the surface and darkens it. If water beads on the surface for longer than 15 seconds the concrete is not porous 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. The surface must be cleaned entirely after the mechanical preparation process; remove all dust.

**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 the overlay from rain for twelve hours after the application is completed.

## Tinting Instructions:

Durável TCO is manufactured with White and Gray cement. Overlay Color Pack iron oxide pigments may be added to the mix water to modify the overlay color, but the color chart is specific to the White overlay. Durável TCO Gray may also be tinted but is typically used without additional color. Samples are required when tinting Durável TCO Gray.

# Technical Data Sheet

## Mixing Instructions:

Mix single bags in clean 5-gallon pails with a helical mixing blade. Water demand varies with environmental conditions and application technique, between 4 and 5.5 quarts per bag (2.8 to 5.2 liters). For best results and longest pot life use clean, cold water – run hot water out of hoses prior to using for mixing – and keep bags cool by not storing in direct sun. Measure mix water into mixing vessel. When applicable, add pigment to the water and thoroughly blend prior to adding bag mix. While mixing slowly, add the bag contents then mix to a lump-free consistency. Make sure to scrape any unmixed product from the sides and bottom of the mixing vessel. Mixed product should be applied promptly and kept out of direct sunlight (if possible) to extend working time. If the product stiffens in the bucket dispose of the mix, do not add more water.

## Application Instructions:

Pre-wet substrate to Saturated Surface Damp (SSD) and continue wetting surface as needed during product application. Pour out mixed product onto the substrate in ribbons over the immediate work area then spread evenly with trowels and/or squeegees. Under normal conditions the mixed product has a +/- thirty-minute pot life, so it is not necessary to pour out the entire mix at once. See Coverage Rate above.

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

## Clean Up:

Clean tools and mixing vessels with water. Capture runoff as necessary to protect downstream surfaces. If needed, remove product from adjacent surfaces before it dries. Dried product may be loosened with light acids; test an inconspicuous spot to ensure that the surface is not damaged by the cleaning process.

## Maintenance:

Durável TCO must be finished with a clear or colored sealer. Follow the maintenance instructions for the selected sealer.

## Cured Physical Properties:

**DENSITY:** 108 pounds/ft<sup>3</sup> (1,730 kg/m<sup>3</sup>)

**COMPRESSIVE STRENGTH:** ASTM C-109: 4,460 PSI at 28 days (30,750 kPa)

**FLEXURAL STRENGTH:** ASTM C-348: 1,032 PSI at 28 days (7,115 kPa)

**TENSILE STRENGTH:** ASTM C-190: 469 PSI at 28 days (3,234 kPa)

**ABRASION RESISTANCE – ASTM D-4060:**

**1 day** = 6 gram lost **7 day** = 6 gram lost

**SHEAR BOND:** ASTM C-882, Modified / mortar scrubbed into substrate  
**7 day** = 1,232 PSI (8,494 kPa) **28 day** = 1,695 PSI (11,686 kPa)

**COLOR:** Gray and White Formulas

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## 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 lubricants.

## Disposal:

Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

## Shelf Life:

Generally one year from date of manufacture in original, unopened packaging stored at room temperature. Shelf life may be extended with reasonable care and protection during storage.

## 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 and to substrates that are a minimum of five degrees above dew point and will remain so during product cure. During application and cure protect product from all contaminants and traffic.

## Warranty:

### IMPORTANT!

Before using all Durável products, 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 [Duravel.com](http://Duravel.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.

# Technical Data Sheet

## Safety Instructions:

Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands and exposed skin thoroughly after handling. 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, boots, protective clothing, and face protection.

## DANGER!

**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.

**IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water or shower. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**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**