

Traffic-Rated Overlay

Durável TRO is a heavy-duty traffic-rated cement overlay system that is engineered to restore texture to worn concrete, and to repair spalls and salt damage. The nearly invisible fiber reinforcement in the mix significantly increases flexural strength and tensile strength. The just-add-water mix is self-bonding and cures to over 6,000 PSI. Durável TRO will handle all residential and commercial traffic, including forklifts. Durável TRO is installed on parking lots, parking decks, driveways, sidewalks, commercial entrances, and other exterior and interior horizontal surfaces. The overlay is installed with conventional concrete tools. Finish options include smooth trowel, broom texture, and a range of decorative textures. The single-component bag mixes are available in three formulations: Light Gray, Dark Gray, and White. Durável TRO White may be field tinted to over twenty decorative colors.

Typical Uses:

Fiber-Reinforced Heavy-Duty Cement Overlay Used to Repair and Restore Concrete

- Driveways, parking lots, and decks
- Sidewalks and entranceways
- Loading docks and ramps
- Warehouse and storage floors
- Stairways and steps

Product Advantages:

- Compressive strength over 6000 PSI
- Fiber reinforced tensile and flexural strength
- Just-add-water formula, self-bonding
- Range of color options
- Resists freeze-thaw cycling
- Restores safe non-slip texture
- Repairs up to 1/4" thick and feather to near zero

Coverage:

Fill spalls and damaged areas in thicknesses up to 1/4" per lift. The typical application rate over repaired or smooth surfaces is two coats at approximately 180 square feet per bag per coat.

Storage:

Store unopened bags in a cool, dry location. Protect from excessive humidity. The opened product should be stored in tightly sealed containers. Store in a secure location, accessible by authorized persons only.

Water Demand:

5 to 6.5 Qt (4.7 to 6.2 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:

50 lb (22.7 kg) bags (approx. 0.46 CF)
Gray and White Formulas

FOR PROFESSIONAL USE ONLY

Technical Data Sheet

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 TRO is available in three color formulas: light gray, dark gray, and white. Iron oxide pigments may be added to the mix water to modify the overlay color.

Mixing Instructions:

Mix single bags in clean 5-gallon pails with a helical mixing blade or use a mortar mixer for multiple loads. Water demand varies with environmental conditions and application, between 5 and 6.5 quarts per bag (4.7 to 6.2 L). 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 the mixing vessel. If applicable, add pigment to the water and thoroughly blend. While mixing, slowly add the bag contents, then mix to a lump-free consistency, being sure to scrape any unmixed product from the sides and bottom of the mixing vessel. Mixed products should be applied promptly. If the product stiffens in the bucket, dispose of the mix, do not add more water.

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Application Instructions:

As a Repair Mortar:

Pre-wet substrate to Saturated Surface Damp (SSD), and continue wetting as needed during product application. Pour out mixed product onto the repair area, then spread with trowels and/or squeegees. Durável TRO may be applied at a thickness of up to 1/4"; use the product in lifts for thicker repairs.

When Troweling:

Pre-wet substrate to Saturated Surface Damp (SSD), and continue wetting 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 optional to pour out the entire mix at once. The typical coverage rate is 180 square feet per bag per application. Finish the first coat (base coat) smooth. The topcoat may be troweled smooth by hand or power trowel or finished in a broom texture using a concrete brush.

When spraying:

Keep the substrate dry. Use a hopper gun or compressed air sprayer to apply mixed product to the desired texture. Coverage ranges from 120 to 150 square feet per bag, depending on the texture applied.

NOTE: Do not apply Durável TRO in locations that 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 TRO may be applied neat without sealer. Keep the finished surface clean with leaf blowers, hose-pressure water, and mild detergents. Using a pressure washer for cleaning will hasten abrasion and shorten the overlay service life.

The addition of a sealer will add protection against staining. Follow the maintenance instructions for the selected sealer.

Cured Physical Properties:

DENSITY: 108 pounds/ft³ (1,730 kg/m³)

COMPRESSIVE STRENGTH: ASTM C-109: 6,128 PSI at 28 days (42,251 kPa)

FLEXURAL STRENGTH: ASTM C-348: 800 PSI at 28 days (5,516 kPa)

TENSILE STRENGTH: ASTM C-190: 910 PSI at 28 days (6,274 kPa)

ABRASION RESISTANCE: ASTM D-4060:

1 day = 1 gram lost | 7 days = 1 gram lost

SHEAR BOND: ASTM C-882, Modified / mortar scrubbed into the substrate

7 days = 1,232 PSI (8,494 kPa) | 28 days = 1,695 PSI (11,686 kPa)

COLOR: Light Gray, Dark Gray, or White

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Slip Resistance Disclaimer:

Notice: The Occupational Safety and Health Administration (OSHA) and the American Disabilities Act (ADA) has 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 0.6 and on ramped walking surfaces of 0.8. The system applicator/end user assumes all responsibility for providing 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:

Disposal of product and packaging should be in accordance with applicable regional, national and local laws and 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 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. It 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 the vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the datasheet. Furthermore, Durável

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assumes no responsibility for injury caused by the abnormal use of this material, even if reasonable safety precautions are followed.

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.



Always Review SDS & Technical Data Prior to Use

REV 12.22.2022