



# DURALKOTE 500

## ULTRA HIGH BUILD EPOXY LINER

### DESCRIPTION

**DURALKOTE 500** is a 100% solids, solvent free, low odour epoxy liner system. It is impervious to a wide variety of acids, caustic solutions, oils, grease and many other chemicals. **DURALKOTE 500** is particularly resistant to sulfuric acid up to a concentration of 75%. No special precautions are necessary to contain odours or solvents often found in many other liner systems. **DURALKOTE 500** is ideal for use as a protection system in the wastewater and chemical industries.

### PRIMARY APPLICATIONS

**DURALKOTE 500** is used as a lining system for protection against chemical attack to:

- Manholes
- Lift stations
- Headwork
- Sewer pipes
- Grit chambers
- Clarifiers
- Wastewater and containment areas
- Walls
- Sumps
- Trenches
- Pits
- Concrete tanks

### TECHNICAL INFORMATION

**Material Properties @ 24°C and 50% RH** (Values presented are typical laboratory data)

Mixing Ratio (by volume)	1:1
Gel Time (150g), minutes	30 to 40
Tensile Strength, ASTM D638, MPa @ 7 days	28.9
Elongation, ASTM D638, % MPa @ 7 days	3 to 6
Compressive Strength, ASTM D695, MPa	60.5
Shore D Hardness, ASTM D2240 @ 7 days	88
Bond to Damp Concrete, ASTM D4541 @ 7 days	Concrete Failure
Flexural Strength, ASTM D790 A 7 days MPa	35.1

**Appearance:** **DURALKOTE 500** is available in Light Grey

### PACKAGING

**DURALKOTE 500** is packaged in 20L sets.

### SHELF LIFE

2 years in original, unopened containers.

### COVERAGE

Liner System	m <sup>2</sup> /L
Duralkote 500, 1st Coat	0.6 @ 1.6 mm
Duralkote 500, 2nd Coat	0.3 @ 3.2 mm
Duralkote 500 w/ 2.5 parts sand	0.8 @ 3.2 mm

**Note:** Coverage rates are approximate. Actual coverage rates depends on temperature, texture, and substrate porosity.

## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. See note in “Precautions/Limitations” section if coating is to be placed over old/existing epoxy or urethane coatings. New concrete and masonry must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralise the substrate. The Concrete Surface Profile (CSP) should be equal to CSP 2-4 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM C1583, and the tensile pull-off strength should be at least 1.7 MPa.

After surface preparation, a test section application of the coating system is recommended to confirm good adhesion and compatibility of the coating with the surface, and also to confirm appearance and aesthetics. When coating steel, all contamination should be removed and the steel surface prepared to a “near white” finish using clean, dry blasting media.

**Mixing:** Mix **DURALKOTE 500** using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 3 minutes each. Combine Part A and Part B in a 1 to 1 ratio by volume, then mix thoroughly for 3 to 5 minutes. Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, use the recommended mixing paddles.

To make **DURALKOTE 500** mortar, gradually add clean, dry, 60 mesh silica sand to previously mixed **DURALKOTE 500** epoxy and mix thoroughly for 3 to 5 minutes. Combine 1 part by volume of mixed **DURALKOTE 500** with 2 to 3 parts by volume of 60 mesh silica sand.

**Application:** Apply properly mixed **DURALKOTE 500** using a brush, short nap roller, trowel, or spray to the properly prepared surface. **Roller and Brush:** Apply at a rate up to 2.5 mm (0.4 m<sup>2</sup>/L) in one application. **Trowel:** **DURALKOTE 500** can be trowel-applied “neat” or mixed with silica sand to make a mortar (see instructions listed in the “Mixing” section above). **Spray:** **DURALKOTE 500** can be applied by plural component spray equipment. A 3.2 mm thickness can be applied in one application.

## CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened **DURALKOTE 500** will require mechanical abrasion for removal.

## PRECAUTIONS / LIMITATIONS

- Store **DURALKOTE 500** indoors, protected from moisture, at temperatures between 10°C and 32°C.
- Surface and ambient temperature during coating applications should be between 10°C and 32°C.
- Material temperatures should be at least 10°C and rising.
- Do not apply **DURALKOTE 500** if surface temperature is within 3°C of the dew point in the work area.
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases.
- Do not thin **DURALKOTE 500**.
- Do not apply **DURALKOTE 500** to slabs on grade unless an uninterrupted vapour barrier has been installed under the slab.
- Do not apply **DURALKOTE 500** if the substrate is subject to excessive moisture vapour drive or hydrostatic pressure.
- Although **DURALKOTE 500** is chemically resistant, surface staining of the coating may occur after contact with some chemicals.
- **DURALKOTE 500** will discolour upon prolonged exposure to ultraviolet light and high-intensity artificial lighting.
- Depending on the condition of the substrate, minor surface defects can appear in the coating when applied.
- Proper surface prep, patching of substrate imperfections, and priming will ensure a better overall finish.
- If coating over old/existing epoxy or polyurethane coatings, or if more than 24 hours elapses between coats: sand the previous coat, wipe clean, and proceed with coating operations. If old/existing coatings are peeling, flaking, etc., all unsound material must be removed prior to new coating applications.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user.
- In all cases, consult the product Safety Data Sheet before use.

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