EPOXY EP100 BIO TS™

Date of Issue – September 2020 V1.1
This TDS replaces all previous versions.

TECHNICAL DATA SHEET

DESCRIPTION

Epoxy EP100 BIO TS™ is a 100% epoxy resin, engineered and formulated with the latest technology in Germany. It is high performing, two pack epoxy bio carbon resin and has good resistance to crystallization. The main use of application for this product are found in trowel down epoxy flooring, epoxy resin flooring compositions, screeds, mortars and prime coats, but also widely used for coatings in civils as well as mechanical engineering and corrosion protection.

FEATURES & ADVANTAGES

- High-performance epoxy
- BIO Carbon based technology
- Excellent adhesion
- Excellent abrasion resistance
- Excellent water & chemical resistance
- Extraordinary resilience
- Retards growth of mould, fungus, mildew and bacteria
- Perfect for heavy-duty environments
- Solvent free
- Easy to apply, clean & maintain

RECOMMENDED USE

- Bars, Pubs & Taverns
- Butcher Shops and Commercial Kitchens
- Food Processing Plants & Grocery Stores
- Schools, Stadiums & Hallways
- Showrooms, Garages and Workshops
- Lobbies, Lounges, Nightclubs & Foyers
- Salons, Retail Stores and Wineries
- Shopping Centres and Retail Flooring
- Museums, Office Buildings & Galleries
- Restaurants & Lunch Rooms
- Veterinary Clinics, Zoos & more…

TECHNICAL DATA & CHARACTERISTICS

APPEARANCE	Liquid
COLOUR	Clear
VOLUME SOLIDS	100 %
FINISH	Gloss
COVERAGE	5 – 12m²
MIX RATIO	2 : 1 (2 Parts A to 1 Part B) by Volume
PACK SIZES	30L Kit
SPECIFIC GRAVITY	Part A 1.10 – 1.13 kg/l | Part B 1.00 – 1.02 kg/l | BIO Carbon 15%
POT LIFE	20 – 40 minutes
DRYING TIME	2 – 4 hours @ 25°C
RECOAT TIME	4 – 24 hours @ 25°C
FULL CURE	7 days @ 25°C
SHELF LIFE	12 months, if properly stored in original unopened containers at temperatures between 10°C and 30°C, away from sunlight.

* The pot life time depends on climatic conditions and temperatures.

** Drying times generally depend on air circulation, temperature, film thickness, and application methods. The figures given above are typical with good ventilation, typical film thickness and single coat application.

SURFACE PREPARATION

All surface preparations must be carried out to Australian Standard or International Standard. New concrete must be cured for a minimum of 28 days before a coating.
Concrete moisture test should be carried out prior to coating application as per Standard ASTM4263 and/ or International Standard. The moisture content should be less than 4%.
Surface to be treated must be structurally sound and the substrate compressive strength should be at least 25MPa. The substrate tensile strength should be at least 1.5N/mm^2. All non-structural cracks, holes and surface deformities should be repaired.
In general, the surface to be treated MUST be clean and free of all traces of loose material, dirt, debris, mildew, oil, grease, old coatings, curing compounds, release agents, laitance, dust and other contaminants.
All new or old concrete surfaces should be prepared by mechanical grinding, abrasive blasting, blast tracking, or any other suitable preparation/cleaning methods. Surface profile should exceed CSP 3 after preparation. Check if all traces of oil and other contaminations has been completely removed prior coating application.
For more detailed information, see following standard codes of practice, guides and techniques:
ASTM D4258 Standard practice for surface cleaning concrete for coating
ASTM D4259 Practice for abrading concrete
ASTM D4260 Practice for liquid and gelled acid etching of concrete
ASTM D4262 Test method for pH of chemically cleaned or etched concrete surfaces
ASTM D4263 Test method indicating moisture in concrete by the plastic sheet method
ASTM D4285 Test method for indicating oil or water compresses air

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APPLICATION & GUIDELINES

Epoxy Resin Compositions, Screeds and Mortars
Mix Epoxy EP100 BIO TS™ (2 Parts A) with Epoxy EP100 BIO TS™ Hardener (1 Part B). The mix ratio is 2:1 by volume. Always add Part B into Part A and make sure you add Part B slowly while mixing Part A. Use a mechanical mixer to ensure thorough mixing. Once Part A and Part B have been mixed, keep mixing and slowly add sand or additive into mixed epoxy batch and keep mixing thoroughly until evenly distributed and/or desired consistency of your epoxy composition/screed/mortar/coving is achieved.

Mixing
Mix Epoxy EP100 BIO TS™ (2 Parts A) with Epoxy EP100 BIO TS™ Hardener (1 Part B). The mix ratio is 2:1 by volume. Always add Part B into Part A and make sure you add Part B slowly while mixing Part A. Use a mechanical mixer to ensure thorough mixing and avoid aeration when mixing the product. Use a lint free epoxy roller to apply the product. Always mix full pack sizes to avoid incorrect measure of ratio.

Application
Always prime surface before the first coat to prevent pin holing and to minimise sink-back of material. Prime coat with approximately 7-12m^2/L, check for pinholes and do a 2nd prime coat if necessary.
If thinning is required, you can add 10% Solvent SLP100™ for prime coat, and 5% Solvent SLP100™ for base coat. Discard all leftover material.
Two coats as minimum recommended. Use a brush, roller or spray to apply the product. We recommend using a lint free epoxy roller. The second coat has to be applied within 24 hours of the application of the first coat to ensure the second coat will bite into the first coat. After 24 hours the first coat has to be sanded prior application of the second coat to assure a sound adhesion between coats. Different finishes can be achieved with Gloss, Satin or Matte finish Urethanes. Do NOT use after exceeding the pot life as the product will not provide an appropriate adhesion anymore. Discard all leftover material. Do NOT pour mixed unused material back into the original containers as this will start the whole material to expire within the drum.

Curing Times
Pot Life: 20-40 minutes, Touch Dry: 2-4 hours, Re-coat: 4 – 24 hours, Hard Dry: 12-18 hours, Full Cure: 7 days. Allow coating to cure for at least 24 hours before subjecting to light pedestrian traffic and at least 7 days for full cure and vehicular traffic. The pot life time depends on climatic conditions and temperatures. All drying times depend on film thickness, ventilation, temperature, humidity and application methods. All curing times mentioned in this TDS are based on temperatures of 25°C. Lower temperatures will extend curing times. If the temperature in your region is 12.5°C, all curing times will double e.g. full cure will be approximately 14 days or longer. DCC does not recommend epoxy application when temperatures are below 10°C as the epoxy goes into B-staging (the epoxy stops curing).

Cleaning
Clean all equipment immediately after use with Solvent SLP100™.

Coating Maintenance
In general dirt, dust, contaminants, and excessive wear and tear will shorten the life of coating. Keep these areas clean and free from such pollutants and avoid excessive wear and tear. Clean coating regular with warm mild detergent water up to 60°C and rinse with clean water. Do not use abrasive brushes, scouring pads or solvent to clean the coated surface. It is advisable if abnormal wear and tear will occur through moving furniture such as office chairs, keep these areas protected with a protective mat. Further to the above cleaning recommendations please ensure immediate cleaning of any spills. Refer to DCC Maintenance & Cleaning Guide for detailed information.

Compatibility & Suitability
Do NOT mix this product or use this product in combination with any other products or brands. Due to the differences in substrates, material and site conditions, and environmental surrounds, the applicator holds whole responsibility for checking the product's suitability for its intended purpose prior to application. Only products of the same brand/system should be used in combination as a system.

TECHNICAL DATA SHEET

PRECAUTIONS

For professional use only. Safety Data Sheets and Technical Data Sheets must be read before using and opening this product. Keep out of reach of children. Always wear personal protective equipment (PPE) when handling this product. Keep away from heat and flame. No smoking. Provide adequate ventilation. For more details refer to safety data sheet (SDS).
Do not apply if the air or surface temperature is below 10°C, or if the temperatures are subject to drop below 10°C during applying, or after application within the curing time.

Product will discolour on exterior exposure.

Do not apply if substrate is subject to hydrostatic pressure or rising dampness.

Do not apply if surface is subjected to unusual high temperatures above ambient temperature.

Do not apply if the surface temperature is over 30°C, or if the surface temperature is subject to raise above 30°C during applying, or after application within the curing time, or if relative humidity is suspected to become above 85%.

Do not apply if substrate is subject to rain or moisture, and protect surface at least 24 hours against any water impact, or moisture after application within the curing time. Do not use any product past its pot life. Store locked up, in a cool, dry, well ventilated place, away from sunlight, between 10°C and 30°C. Keep container tightly closed.

DISCLAIMER

Do not apply this product if there is uncertainty about its application or surface preparation. This Technical Data Sheet is to be used as a guide only; it is NOT a specification. Durable Concrete Coatings Pty Ltd has no control over the use or storage of this product and therefore does not accept liability in this regard. Any verbal advice given should not be regarded as authoritative information. This information is subject to change without notice, therefore all applicators should ensure they have current information. This product is intended for the use only of skilled tradesman and where applicable, statutory licensed tradesmen experienced and trained in the use of this product. Due to differences in substrates, application methods and local conditions purchasers of these products must ensure that it is suitable for their specific application before using these products. While the information contained in the TDS and SDS is accurate to the best of our knowledge, Durable Concrete Coatings Pty Ltd cannot guarantee that the information contained is wholly comprehensive. Subject to the provisions of the Trade Practices Act, the company's liability in relation to defective products shall be limited to replacement of the product, if the product is proven to be defective. All Durable Concrete Coatings Pty Ltd terms and conditions apply.

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