RepPoxy BDS

TuffTex Materials
2209 Donley Drive
Austin, TX 78758
Office: (512) 617-7334

TuffTex Materials
RESTORATION MADE EASY

Bridge and Parking Deck Penetrating Crack Healer Sealer

DESCRIPTION:
RepPoxy BDS is a two-component 100% solids epoxy designed as a very low viscosity, high strength deck sealer for hairline cracks in concrete substrates. **RepPoxy BDS** can be used for restoration of older concrete pavement decks; repair of new concrete decks with curing cracks; concrete crack repair without injection equipment; protection of deck rebar from chloride ion intrusion causing corrosion.

FEATURES:
- New as well as old concrete surfaces
- Repairs cracks up to 24" in depth
- Ultra-Low viscosity
- Moisture tolerant
- Outstanding anti-spalling properties
- High-load bearing capacity
- Resists the effects of freeze-thaw cycling
- Protection against de-icing & other chemicals
- Reduces freeze/thaw damage
- Fast drying in any temperatures
- Increases concrete service life

USES:
- Restoration of older concrete pavement decks
- New concrete decks with curing cracks
- Crack repair without injection equipment
- Protection of deck rebar from corrosion
- Non Slip Surfaces like ramps, loading docks

TECHNICAL DATA:
AASHTO Task Force 34 Epoxy Polymer Concrete Bridge Deck Overlays, ACI 548 Type EM (Epoxy Multi-Layer) Polymer Overlay, ASTM C-881, Type III, Grade I, Classes B & C. **Meets TxDOT DMS 6100-Type 4**

COVERAGE GUIDE:
40-200 sq ft. per gal. depending on substrate.
All coverage rates are approximate. Coverage rates will vary with the texture and the porosity of the concrete.

PREPARATION:
New Concrete- Surface should be well cured (28 day minimum) using water, wet burlap, polyethylene curing paper, or dissipating resin based curing compound. Old Concrete- Remove any previously applied sealers, dust, dirt, tar, oil, etc. with pressure wash and **TuffTex RepClean™** Citrus Cleaner or use other appropriate measures to properly prepare the substrate. Membranes of any kind must be removed. A slight etch with biodegradable **PrepEtch™** will enhance penetration and performance.

MIXING:
Premix each **RepPoxy BDS** component. Proportion equal parts by volume of Component "A" and Component "B" into a clean mixing container. Add Part B to the A Side Component and mix using either the **TuffTex Rapid Pail Mixer** or a low-speed (400-600 rpm) drill. Only mix what can be applied within 25 minutes.

PLACEMENT:
Mix 3 parts by volume of Side A Resin with 1 part of Side B Hardener as packaged by **TuffTex Materials.** A mechanical agitator should be used, such as an electric drill with a mixing paddle attached. After mixing thoroughly for at least **three minutes**, the epoxy may then be applied immediately by pouring onto the concrete deck or substrate. The mixed epoxy should be allowed to pool over the visible cracks, and then spread progressively thinner over the entire surface to be sealed with a squeegee or stiff bristle push broom.

Keep pooling RepPoxy BDS into cracks and pores until refusal.
Soon after applying the epoxy to the substrate (within 30 minutes) depending upon ambient temperature and tackiness, mechanically broadcast kiln dried, medium coarse sand evenly onto the wet epoxy surface at a rate of 200-400 pounds of sand per 1000 sq.ft of epoxy sealed substrate. This is to promote an anti-skid surface.

It is imperative to apply this sand into the epoxy film before it cures, or the sand will not adhere to the epoxy and a dangerously slick road surface could result.

The final cured surface appearance should be dull and not glossy. Application of the epoxy should be restricted to an ambient and surface temperature range of 50-85°F range. Epoxy pot life decreases significantly as temperature increases. Therefore, working times for mixed epoxy are significantly shortened at elevated temperatures.

CURING / DRYING TIME:
RepPoxy BDS allows vehicle traffic after a minimum of 5 hours at 75°F (25°C). Tack free time is decreased in warmer temperatures and increased in cooler temperatures.
NOTE: It is highly recommended that all components be conditioned in advance of use to 75°F (24°C). This may take 48 hrs. It is to the contractors benefit to maintain the components at elevated temperatures.
*At lower temperatures, the resin will be become difficult to remove from containers and to mix properly.

CLEAN UP:
Tools and Equipment: Clean with Xylene or other approved solvent. Uncured material can be removed with solvent. Cured material can only be removed mechanically. Dispose of in accordance with current applicable local, state, and federal regulations. Cured Resins are Innocuous.

PACKAGING (3:1 Ratio**)**
1 gallon (3.785 L) kits
4 gallon (15.14 L) kits
20 gallon (75.71 L) kits
220 gallon (757.08 L) kits

COLOR:
Clear

STORAGE:
The material should be stored between 40°F–95°F (4°C – 35°C) in a cool, dry area away from direct sunlight.

SHELF LIFE:
Shelf life of properly stored, unopened containers is 24 months. Excessive temperature differential and/ or high humidity can shorten the shelf life expectancy.

LIMITATIONS:
- Minimum substrate and ambient temperature for application 50°F (10°C).
- Do not apply over wet, glistening surface.
- Material is a vapor barrier after cure.
- Do not apply to porous surfaces exhibiting moisture-vapor transmission during the application. Consult Technical Service.
- Minimum age of concrete prior to application is 21-28 days, depending on curing and drying conditions.
- Use oven-dried aggregate only.
- Do not thin with solvents.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.
- **MIX ONLY THE AMOUNT THAT CAN BE USED WITHIN ITS POT LIFE!**

READ SDS PRIOR TO USING THIS PRODUCT.

WARRANTY:
Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either **TuffTex Materials** or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.

PHYSICALS:	
Mixing ratio by volume	3:1
Viscosity of mixed components	95 centipoises
Gel Time	75 minutes
Practical Field Pot Life (4 gals.@ 85° F)	45 min
Tack free time (77°F ASTM C679)	6 hrs.
Initial cure (thin film @ 77°F)	8 hours
Max full cure	7 days
Compressive strength (DMS-6100)	6000 psi
Compressive Stress @ 5% strain after 48-hr cure at 77°F	10,500 psi
Concrete Wet Bond Strength (DMS-6100)	480psi
Coverage	40-150 sq. ft./gal
Water gain (ASTM D-570-57T)	0.2% max
Tensile Strength (ASTM D638)	2,500 psi