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BIO-TEC

2-PACK WATER BASED EPOXY

PRODUCT DESCRIPTION

Bio-tec is a 2 pack epoxy coating system designed to cope with the demands of modern sanitary areas where the highest levels of aseptic conditions are required.

USES

Tile-like wall coating.

Interior institutional/commercial high maintenance areas.

Upgrade surfaces painted with conventional coatings to a high performance protection system without lifting and bleeding.

Low odour/no shutdown sanitary coating system

- o Clean Rooms
- o Hospitals
- o Institutional Kitchens
- o Food plants
- o Laboratories
- o Processing Equipment
- o Pharmaceutical houses
- o Exterior storage tanks
- o Manufactured equip
- o Structural steel
- o Masonry construction
- o Schools

PERFORMANCE INFORMATION

Meets performance requirements of ASTM D3730.

Corrosion and chemical resistant.

Impact and abrasion resistant

Flash rust resistant

Pro-active killing effect on many bacteria and fungi including:-

BACTERIA

Staphylococcus aureus, Enterococcus faecalis Escherichia coli, Salmonella Typhimurium Shigella boydii, Pseudomonas aeruginosa Corynebacterium pseudodiphtheriae, Bacillus subtilis

FUNGI

Candida albicans

Penicillin chryseogerum

Aspergillus niger

PHYSICAL PROPERTIES

Moisture condensation resistance.....Excellent

(ASTM D4585, 38oC, 3,000 hrs)

Pencil hardness (ASTM D3363).....H

Salt fog resistance (ASTM B117,500hrs...Excellent

Scrub resistance (ASTM D2486).....4800 cycles

Washability & stain resistance....Max 25 cycles for complete removal of:

Sheaffer's ink Lipstick Grape juice

Blood Coffee Catsup

Mercurochrome Coke Sulfadine Solutions

Thermal shock (ASTM D2246 5 cycles).....Passes

Wet heat resistance (not immersion).....38oC

CHARACTERISTICS

Color/Finish: Wide range of colors possible/
 Gloss 65 + units @ 60o
 Semi-Gloss 25+/-5 units @ 60o

Curing Mechanism: Crosslink polymerisation

Drying Schedule: (temp & humidity dependent)

@25oC, 50% RH @ 8 mils wet

To Touch: 1 hour

Tack Free: 2 hours

To Recoat: 18-24 hours

To Cure: 14 days

Number of

Components: 2 (4:1 mix by volume)

Pot Life: 36 hrs @ 25oC

Recommended Spreading Rate:
 8 sq mt/lt
 (theoretical, no loss)
 125 microns wet
 50 microns

Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Shelf Life: 36 months unopened @25oC

Volume Solids: (Pure White) (catalysed)
 38+/-2% (Gloss)
 40+/-2% (Semi-Gloss)

Weight Solids: (Pure White) (Catalyzed)
 47+/-2% (Gloss)
 50+/-2% (Semi-Gloss)

Specific Gravity: 1.178 – 1.215

“Sweat-In” Time

2 hours @ 18-38oC
 4 hours @ 13-18oC or when
 humidity is 60-85%

SURFACE PREPARATION

Interior Plastered Walls and Wood:- Ensure all surfaces are clean, dry and sound. If powdery or very uneven for porosity, treat with Water Based Stabilising Solution.

Prime with Bio-tec Water Based Epoxy Primer thinned 5% with water. Topcoat with 2 coats of Bio-tec Water Based Epoxy Finish at regular film thickness.

NB. If filling after the Prime Coat use high quality ready mixed filler as some powdered fillers remain powdery over a sealed surface.

Drywall (plaster board):- Fill cracks and nail holes with exterior grade filler/spackle and sand smooth. Remove all sanding dust. Paint as per plaster above.

Concrete Block and Masonry:- Surface temperatures must be at least 13oC before painting. All masonry must be free of moisture, dirt, oil, masonry dust and mortar. Poured, troweled or tilt-up concrete, plaster, mortar etc. should be cured for at least 30 days at 25oC. Form release compounds and curing membranes must be removed by brush blasting.
 Paint as per plaster above.

Iron and Steel:- Minimum preparation is power tool clean per SSPC-SP3. Best results are obtained using commercial blast cleaning per SSPC-SP6.

Prime with one coat Bio-tec Water Based Epoxy Primer unthinned followed by two coats of Bio-tec Water Based Epoxy Finish

Aluminium:- Remove all oil, grease, dirt etc. by solvent cleaning as per SSPC-SP1.
 Paint as per steel above.

Galvanised:- Solvent Clean as per SSPC-SP1 and apply etch primer E61G520.
 Paint as per steel above.

Previously Painted Surfaces: If in sound condition, clean the surface of all foreign material. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface. Old epoxy films must be brush blasted or scuff sanded prior to coating. Spot prime bare areas with recommended primer.

NB: DO NOT USE ON FLOORS.

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RECOMMENDED SYSTEMS

APPLICATION

Spray equipment should be flushed with warm water before use to prevent blocking of lines. In early stages of drying Bio-tec Water Based Catalyzed Epoxy is sensitive to rain, dew, high humidity, cool evening temperatures and moisture condensation. Painting schedules should be planned to avoid these influences during the initial 16-hour drying period (@21oC & 50% RH) of the epoxy.

Application Conditions:

Temperature (air, surface, material)
(at least 3oC above dew point) 13oC to 38oC
Relative Humidity 85% maximum

Methods

Brush, roll and airless spray.

Airless Spray:

unit:	2000psi
tip:	.015"
filter:	100 mesh
hose:	?"

Roller:

Avoid "back-rolling" and overworking which causes foaming.

Mixing Instructions:

Thoroughly mix each individual component (A&B). Then combine 4 parts by volume Part A with 1 part by volume Part B. Thoroughly agitate mixture. Allow mixture to "sweat in " for 30 minutes when temperatures are between 18-38oC. At lower temperatures (13-18oC) or when humidity is 60-85%, "sweat-in" time must be 1 hour. Complete mixing and proper induction time is essential for Bio-tec Water Based Catalyzed Epoxy to dry. Do not mix previously catalysed material with new.

Tinting:

May be tinted with Fleetwood colorants into Part A. Shake on mechanical shaker for 3 minutes prior to adding Part B by stirring only

Reducer:

Water

Reduction:

Where necessary to be compatible with the existing application and environmental conditions, up to 1 pint of water per gallon catalyzed material after induction.

Clean-Up:

Use soap and wear followed by solvent flush for spray equipment to avoid rusting following supplier's safety cautions.

PRECAUTIONS

CONTAINS CRYSTALLINE SILICA (Semi-Gloss) EPOXY RESIN.

Use only with adequate ventilation. To avoid over-exposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, head-aches or dizziness, increase fresh air or wear respiratory protection (TC23C or equivalent) or leave the area. Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided, wear an approved particulate respirator (TC21C or equivalent). Follow respirator manufacturer's directions for respirator use. Do not permit contact with skin and eyes. Wear neoprene gloves and goggles. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID

In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, get medical attention immediately

DO NOT TAKE INTERNALLY KEEP OUT OF REACH OF CHILDREN FOR PROFESSIONAL USE ONLY NOTE: PROTECT FROM FREEZING SEE MATERIAL SAFETY DATA SHEET