

TECHGUARD 105

A NON-TOXIC, FLEXIBLE HIGH BUILD, EPOXY POLYSULPHIDE COATING

DESCRIPTION

TECHGUARD 105 LPEP is a protective flexible high build epoxy polysulphide resin coating, specifically developed to protect concrete and steel from contact with aggressive chemicals, oils, mild acids, solvents and has a broad spectrum of chemical resistance. Supplied as a two-pack system, comprising pigmented base and a hardener, it requires only on site mixing producing an easily applied decorative and chemically resistant finish.

TYPICAL PROPERTIES

Sr. No	Properties	Specification
1	Physical Form	Comp. A - White viscous liquid Comp. B - Clear brown liquid MIX (A+B) - White liquid
2	Sp. Gr. gm./cc	Comp. A - 1.25 to 1.35 Comp. B - 0.98 to 1.08
3	Mixing Ratio	75 : 25 by weight
4	Pot life	Min. 5 Hrs.
5	Tack free time	Max. 2 hr.
6	Complete cure (Hrs.)	Min.24Hrs.
7	Re coating (Hrs.)	Ideally overnight but can be applied after 8Hrs.
8	Elongation at Break % ASTM D638	100 %
9	Tensile Strength Kg/cm ² ASTM D638	5 Kg/cm ²

ADVANTAGES

- Superior chemical resistance
- Waterproof and protective
- Durable
- UV resistant
- Easily applied by brush or roller
- Flexible
- Tough

PRIMARY USES

- For the internal protection of concrete or metal tanks containing sewage, sludge, certain chemicals, oils and fuel, as an impervious, resilient and chemically resistant floor or wall coating and as a gas and vapour barrier.
- As a protective and decorative coating in laboratories, abattoirs, etc.
- Other usage areas include oil refineries, paper mills, power stations, marine applications, garages, hospitals, hangars and most liquid containment areas.

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APPLICATION PROCEDURE

1. SURFACE PREPARATION

Surfaces must be clean and dry. Use suitable methods to remove dirt, dust, oil and all other forms of contamination that could interface with the adhesion of the coating.

2. CONCRETE

Concrete must be cured for 28 days.

Mechanically surface profile the substrate to CSP3 as described by the International Concrete Repair Institute. Voids and pinholes must be repaired with suitable products from the REPAIR range. Porous concrete should be primed with **TECHPRIME 107 primer for TECHGUARD (one coat @50 μ)**

3. STEEL

Prepare to SSPC-SP6. Surface profile 50 – 75 micron. Do not allow surface to re-oxide before application of TECHGUARD 105 LPEP.

4. MIXING

TECHGUARD 105 LPEP is supplied in two pre weighed components, base and reactor. No additions or omissions are required. Add reactor contents to the base component and mix thoroughly for at least 3 minutes using a slow speed drill fitted with a suitable mixing paddle until a uniform streak free color is achieved.

5. APPLICATION

TECHGUARD 105 LPEP coating can be applied using good quality rollers or short haired brushes or by airless spray. TECHGUARD 105 LPEP should be applied in two coats of contrasting colors to ensure complete coverage free of holidays. If the application is delayed more than 16 hours at 40°C or 36 hours at 20°C after the previous coat (the higher the ambient temperature, the shorter the maximum period), then the previous coat must be thoroughly abraded to give an adequate mechanical key and solvent wiped.

6. APPLICATION TEMPERATURE

The quality of the final coating is dependent on the substrate and the material temperatures. A substrate temperature of min. +14°C and max. +30°C is required. Prior to application the optimal material temperature is +20°C to +25°C.

7. AIRLESS SPRAY

For application by airless spray, use a 45:1 or higher ratio pump, minimum 9mm dia.

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8. OVER COATING

Where areas need to be over coated due to damage etc. it is important that the areas to be treated are well abraded using a stiff rotary wire brush or coarse sand paper to give an adequate key. Completely strip off any unsound coating and proceed with over coating as for new work.

9. CHEMICAL RESISTANCE

TECHGUARD 105 is resistant to the following typically encountered chemicals:

- Chlorine Water – 50ppm
- Deionized Water
- Gasoline
- Diesel fuel
- Phosphoric Acid 20%
- Vegetable Oil
- Sodium Chloride Saturated
- Hydrochloric Acid 5%
- Sulphuric Acid 10%
- Calcium Hydroxide Saturated
- Isopropanol
- Sodium Hydroxide 50%
- Nitric Acid 20%
- Acetic Acid 10%
- Lactic Acid 10%
- Ammonium Hydroxide 30%
- Formaldehyde 37%

APPEARANCE AND FINISH

High gloss, heavy bodied, ultra dense surface, hygienic and easily cleaned. Standard colors are silver grey and window grey.

COVERAGE

22 sq. ft. / kg / 2 coats Dry film thickness: 200 microns

CLEANING OF TOOLS AND EQUIPMENTS

All equipment must be cleaned immediately after use with CLEANING SOLVENT NO. 2. Similar cleaning procedures should be adopted for break periods exceeding 15 minutes duration.

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SPECIFICATION CLAUSE

Where indicated, apply TECHGUARD 105 LPEP protective epoxy polysulfide coating as manufactured by CCPL or similar approved to the following specification:

Composition: Two component, non-toxic, pigmented epoxy polysulfide resin based compound.

STORAGE

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

PACKAGING

TECHGUARD 105 LPEP is supplied in 10 kg units.

SAFETY AND PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children & animals. Reseal containers after use. For further information, refer to material safety data sheet. CHOKSEY CHEMICALS P LTD 111, INDL AREA SION MUMBAI 22 (www.chokseychem.com)