



DRI-GARD EP 1800

High performance, chemical resistant epoxy novolac protective lining

2-component, epoxy phenolic/novolac (EPN) lining that is specially designed to protect concrete and steel structures against aggressive chemicals, salts and solvents. It has excellent abrasion resistance and adhesion strength to concrete, mild steel, and other substrates.

FEATURES/BENEFITS

- Epoxy novolac lining for protection against chemicals
- Excellent chemical & salt resistance
- Excellent adhesion to concrete, mild steel, and other substrates
- Excellent abrasion resistance
- Able to be applied to dry & damp surfaces
- Self-leaving glass flakes for increased impermeability

APPLICATION AREAS

- Wastewater treatment plants
- Offshore & onshore internal linings
- Buried tanks & pipes
- Chemical/Desalination plants
- Petrochemical refineries
- Etc.

PRODUCT DATA

Appearances / Colours	Buff
Finish	Semi-Gloss (Coating may chalk with UV exposure but protective features remain)
Storage	12 months from date of production
Storage Condition	Dry conditions at temperatures between +10 °C to +20 °C. Protect from direct sunlight.

TECHNICAL DATA

Origin	Epoxy Novolac
Specific Gravity	Approx. 1.58 kg/L mixed
Volume Solids	83 ± 2%
Film Thickness	Wet Film Thickness (WFT): 175 microns Dry Film Thickness (DFT): 150 microns
Spread Rate	5.7 m ² per L mixed
Mixing Ratio	3:1 (Part A base to Part B hardener) by volume
Pot Life	60 minutes (at 30°C)
Curing (at 35°C)	Dust free: 2 hours Hard dry: 12 hours

Overcoating Time	Minimum: 12 hours Maximum: 2 days		
Application Method	Method	Suitability	Remarks
	Airless Spray	Yes	Output Fluid Pressure: 3500 – 4000 psi Tip Size: 17 – 21 thou Fan Angle: 50°
	Conventional Spray	No	-
	Brush	Yes	-
	Roller	Yes	-

Chemical Resistance

The fully cured coating is resistant to the splash/spillage of the following chemicals:
(*Any concentration in water)

- Acetic Acid 25%
- Ammonium Hydroxide*
- Benzene
- Benzoyl chloride
- Benzyl alcohol
- Bleach (Sodium hypochlorite)
- Boric Acid *
- Brake Fluid
- Brine 10%
- Car oil
- Carbon tetrachloride
- Castor Oil
- Deionised water
- Diesel fuel
- Diethanolamine 88%
- Ethylene glycol
- Hydrogen peroxide 20% sol
- Fatty acids
- Formaldehyde 37%
- Gasoline
- Hexamine 25%
- Hexane
- Hydraoine 35%
- Hydrochloric acid 35%
- Hydrofluric acid 25%
- Jet fuel
- Isopropanol
- Ethylene glycol monoethyl ether
- Kerosene
- Lactic acid 20%
- Methyl isobutyl ketone
- Mineral spirit
- Nicotinic acid *
- Nitric acid 30%
- Phenol 50% in IPA
- Phosphoric acid 85%
- Potassium hydroxide *
- Propylene glycol
- Sea water
- Skydrol
- Sodium hydroxide *
- Sulfuric acid *
- Tartaric acid 50%
- Toulene
- Vegetable oils
- Xylene

SUBSTRATE

Concrete: New concrete should be cured for at least 28 days and should have a pull-off strength ≥ 1.5 N/mm². Cement or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface. Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. Substrate must have sufficient gradient for surface water to run off easily without ponding water. All blow holes and imperfections should be filled with a suitable Dri-Patch product. If required, clean all surfaces with a water soluble, environmentally friendly degreaser mixed with clean, fresh water. Allow surface to dry before commencing main preparation.

Steel: Prepare using rust scrapers, chipping hammers, needle guns, wire brushes, etc. to St2 standard of EN ISO8501-1:1998 or equivalent. Ensure all scale is removed. Wash down with clean fresh water prior to application. Allow to dry.

MIXING

Mix each component separately prior to thoroughly mixing together 2 – 3 minutes at medium speed. Always use a mechanical agitator. Ensure product is used only in the proportions recommended.

APPLICATION

Dri-Gard EP 1800 should be applied immediately to the prepared surface after mixing. A continuous coating of uniform thickness should be ensured. To re-coat, it is crucial that the second coat be applied within the specified over-coating time.

Spraying: To achieve recommended working pressure requires the use of 63:1 Graco King airless unit. Apply using a heater block at 35 – 40°C (Setting No. 3). The product can also be applied using plural component spray equipment.

Brushing/Rolling: When brushing, apply untinned, lay on, do not over brush. When rolling, use a lambs wool roller and a maximum addition of Dritech EP Thinner No.2 (thinning is not allowed for potable water projects).

Dri-Gard EP 1800 should be removed from tools and equipment with a suitable solvent immediately after use. Cured materials can only be removed mechanically.

LIMITATIONS

- Substrate, ambient and product temperature must remain above 15°C during application and curing. Min. material/container temperature for spray application is 20°C. Avoid moisture contamination.
- Dri-Gard EP 1800 should not be applied on surfaces that are known to or likely to suffer from rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Thermos Hygrometer.
- Application should not be undertaken if the temperature is below 5°C, or is 5°C and falling, nor when the prevailing relative humidity exceeds 90%.
- Dri-Gard EP 1800 may not be colour stable when in contact with some chemicals or direct sunlight. The colour change does not affect the performance of the protective system on either concrete or steel.

HEALTH & SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTE

The information, and, in particular, the recommendations relating to the application and end-use of these products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance to the manufacturer recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. The manufacturer reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.