

DESCRIPTION

Novolac Epoxy EP1000 ACR™ has set the standard in high build film performance coatings in harsh environments on perilous projects. Exceptional for its excellent two-pack, solvent free, novolac epoxy based coating system suitable for a vast range of applications. Applications include acid-proofing of floors, walls, secondary containment structures and wastewater asset protection. This product also provides high level chemical and mechanical protection for concrete, steel, and other prepared surfaces.

Novolac Epoxy EP1000 ACR™ outclasses traditional epoxy coating systems because it is specially formulated with a unique polymeric novolac epoxy resin that strengthens the coating matrix. The other unique feature of this system is it promotes curing to a very high cross-linked chemical foundation and provides low viscosity, this allowing easy application with good surface dampening.

The adhesion characteristics respond excellently to all efficiently prepared concrete and steel surfaces. The standard system cures quickly and this allows very fast return to service in a wide range of demanding industrial, mining and wastewater applications. It is specified and installed to maximise on project confidence in demanding conditions where high durability levels are required.

FEATURES & ADVANTAGES

- High Build – Fast application
- High build version for verticals
- Excellent adhesion
- Extreme abrasion resistance
- Self-priming
- High durability
- Extraordinary resilience
- Excellent chemical resistance
- Unique novolac chemistry
- Excellent mechanical performance
- Easy to apply, clean & maintain
- Meets AS4020 Potable Water Standard

RECOMMENDED USE

- Food processing facilities
- Dairy production
- Abattoirs
- Marina precincts
- Animal care facilities
- Water and waste treatment facilities
- Chemical containment
- Hospitals
- Battery recycling and recharge areas
- Laundromats
- Veterinary Clinics, Zoos

TECHNICAL DATA & CHARACTERISTICS

APPEARANCE	Liquid
COLOUR	Light Grey or Bridge Grey
VOLUME SOLIDS	100 %
FINISH	Gloss
COVERAGE	5m ² /L – minimum 2 coats for standard surfaces, 3 coats for anti-slip
MIX RATIO	3 : 1 (3 Parts A to 1 Part B)
PACK SIZES	16L Kit
SPECIFIC GRAVITY	1.62 – 1.90
POT LIFE	25 – 30 minutes 25°C
DRYING TIME	12 – 24 hours @ 25°C
RECOAT TIME	8 – 16 hours @ 25°C
FULL CURE	7 days @ 25°C
SHELF LIFE	24 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/mm². 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

APPLICATION & GUIDELINES

Mixing

First stir Novolac Epoxy EP1000 ACR™ Part A thoroughly with a powered mixer before use to disperse the colour pigments consistently. Mix Novolac Epoxy EP1000 ACR™ (3 Parts A) with Novolac Epoxy EP1000 ACR™ Hardener (1 Part B). The mix ratio is 3:1. 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. Mix thoroughly and check colour and gloss level before application. If your project requires multiple kits, please box the kits together for colour consistency. The applicator/customer is responsible for applying the correct colour.

Application

The system can be applied by roller or airless spray. Apply prime coat at 8 - 10m²/L to seal off substrate. Apply first coat of Novolac Epoxy EP1000 ACR™ at minimum spread rate of 5m²/L. Apply second coat of Novolac Epoxy EP1000 ACR™ at minimum spread rate of 5m²/L. For anti-slip surfaces, cast Anti-Slip Additives AS400™ into 2nd coat while it is wet. Apply third coat of Novolac Epoxy EP1000 ACR™ at minimum spread rate of 2.5m²/L. Discard all leftover material. Do NOT pour mixed unused material back into the original container as this will cause the whole material to react and cure within the drum. Two coats as minimum recommended at a spread rate of 5m² per litre per coat. Use a lint free epoxy roller to apply the product. The second coat must be applied within 16 hours of the application of the first coat to ensure the second coat will bite into the first coat. If 16 hours is exceeded, the first coat must be sanded prior to application of the second coat to assure a sound adhesion between coats.

Curing Times

Pot Life: 25 - 30 minutes, Touch Dry: 8-12 hours, Re-coat Time: 8-16 hours 25°C, Hard Dry: 24 hours, Full Cure: 7 days 25°C.

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.

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 regularly 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 products suitability for its intended purpose prior application. Only products of the same brand/system should be used in combination as a system.

Chemical resistance

Novolac Epoxy EP1000 ACR™ is resistant to wide range of chemicals. Typical resistance to spills includes:

- Kerosene
- Sulphuric acid solutions
- Sodium hydroxide
- Petroleum
- Diesel fuel
- Hydrochloric acids
- Bleach

Note: Surface staining and discolouration may result from exposure to some aggressive chemicals. Staining and discolouration will not affect the performance of the coating. The system can display some tendency to darken in external applications.

PRECAUTIONS

Safety Data Sheet and Technical Data Sheet must be read before using and opening this product. Keep out of reach of children. Always wear personnel 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. Surface staining and discolouration may result from exposure to some aggressive chemicals. Staining and discolouration will not affect the performance of the coating. The system can display some tendency to darken in external applications.

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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