

DECKRETE NOVALAC CR

High-Performance Novolac CR Epoxy Chemical Resistant Coating System

Description

Deckrete Novalac CR is a premium, two-component novolac epoxy coating system engineered for extreme chemical resistance environments. Formulated with advanced phenol-formaldehyde novolac resin technology, it provides superior resistance against strong acids, alkalis, solvents, and aggressive industrial chemicals.

Designed for long-term protection, Deckrete Novalac CR is ideal for harsh industrial applications where conventional epoxy systems fail.

Key Features

- Exceptional Chemical Resistance
 - ✓ Resistant to concentrated acids (e.g., sulfuric, nitric), alkalis, solvents, and hydrocarbons.
- High Cross-Link Density
 - ✓ Novolac resin structure provides enhanced durability and chemical impermeability.
- Excellent Mechanical Strength
 - ✓ High compressive and abrasion resistance for heavy-duty environments.
- Thermal Resistance
 - ✓ Performs in elevated temperature conditions (typically up to 120°C dry exposure).
- Low Permeability
 - ✓ Minimizes chemical penetration and substrate attack.
- Seamless & Hygienic Finish
 - ✓ Easy to clean and suitable for containment areas.

Typical Applications

- Effluent Treatment Plants (ETP)
- Chemical processing plants
- Secondary containment bunds
- Oil & gas facilities
- Battery rooms and acid storage areas
- Pharmaceutical and industrial manufacturing plants

System Build-Up

1. **Primer Layer**
Suitable epoxy primer for substrate penetration and adhesion
2. **Intermediate Layer (Optional)**
Epoxy mortar or build coat depending on exposure
3. **Deckrete Novalac CR Topcoat**
0.5 – 1.0 mm (multiple coats depending on specification)

Technical Properties

Property	Value
Density	~1.4 – 1.6 kg/L
Compressive Strength	> 80 MPa
Tensile Strength	> 25 MPa
Adhesion to Concrete	> 2.5 MPa (concrete failure)
Shore D Hardness	80 – 85
Chemical Resistance	Excellent
Service Temperature	Up to 120°C (dry)

Chemical Resistance Guide

Resistant to:

- ✓ Sulfuric Acid (up to high concentration)
 - ✓ Nitric Acid (moderate exposure)
 - ✓ Sodium Hydroxide
 - ✓ Hydrocarbons and fuels
 - ✓ Wastewater and aggressive industrial effluents
- (Detailed chemical resistance chart available upon request)

Application Instructions

Substrate Preparation

- Concrete must be sound, dry, and free from contaminants
- Minimum compressive strength: 25 MPa
- Surface preparation by shot blasting or grinding
- Moisture content < 5%

Mixing

- Mix Part A and Part B thoroughly using mechanical mixer
- Mix ratio: As supplied

Application

- Apply by roller, brush, or airless spray
- Ensure uniform thickness
- Multiple coats recommended for high chemical exposure

Coverage

Approx. 0.5 – 0.8 kg/m² per coat
(Depending on substrate profile and system design)

Curing Time

Touch dry	: 6 – 8 hours
Light traffic	: 24 hours
Full chemical resistance	: 5 – 7 days

Packaging

Supplied in pre-weighed kits.

Part A	: 4 kg
Part B	: 1 kg
Total	: 5 kg

Storage & Shelf Life

- 12 months in original sealed packaging
- Store in dry, cool conditions

Health & Safety

- Use appropriate PPE during application
- Refer to Material Safety Data Sheet (MSDS)

System Advantages vs Conventional Epoxy

- 3-5 x higher chemical resistance
- Superior performance in ETP and acidic environments
- Longer service life → lower lifecycle cost

Specification Clause

Apply Deckrete Novalac CR, a two-component novolac epoxy coating system with high chemical resistance, applied at minimum 0.8 mm thickness, onto properly prepared concrete substrate in accordance with manufacturer's specifications. System shall be suitable for

aggressive chemical exposure including acids, alkalis, and industrial effluents.

Technical Support

Topkrete offers a technical support package to specifies, end-users and contractors, as well as on site technical assistance.

Additional Information

Topkrete manufacturers and offers a wide range of complementary products which includes water stop, waterproofing, products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spelled concrete are available.

Warranty

Topkrete Sdn Bhd warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to TOPKRETE SDN BHD shall be limited to replacement of the material proven to be defective, and TOPKRETE SDN BHD shall in no case be liable otherwise or for incidental or consequential damages. **TOPKRETE SDN BHD MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED.** User shall determine the suitability of the product for its intended use and assume all risks and liability in connection therewith.

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