Nordbak®

NORDCOAT 2

Technical Data Sheet February 2023

6 x 1kg (Black) PART NUMBER 8110-0200 6 x 1kg (Blue) PART NUMBER 8110-0201

HEAVY DUTY CORROSION, ACID AND WEAR RESISTANT COATING Tested against and complies with South African National Standard 1217

Tested against South African National Standard 241 (drinking water)

TECHNICAL DATA

Components	Two Parts – Resin & Hardener
Appearance (Resin)	Black / Blue
Appearance (Hardener)	Dark Black / Blue
Kit sizes	6 x 1kg

DESCRIPTION:

NORDBAK® NORDCOAT 2 is an outstanding corrosion, acid and wear resistant coating which can be used on steel, as well as a wide variety of other substrates.

NORDBAK® NORDCOAT 2 is a two-part 100% solids copolymer coating giving maximum coating thickness in a one-coat application.

RECOMMENDED APPLICATIONS

Food Processing Plants	Acid Production Plants
Sugar Mills	Water Purification and Storage
Chemical Plants	Sewerage Works
Battery Bays	Fruit Processing
Mineral Extraction Plants	De-ionised Water Storage Tanks
Steam Cleaning Bays	Laboratories
Electro Plating Plants	Cold Storage Rooms
Fish Processing Factories	Fertiliser Factories
Abattoirs	Animal Cages
Dairies and Cheese Factories	High Temperature applications
Petrochemical Plant	Phosphoric Acid

GENERAL CHEMICAL RESISTANCE – IMMERSION

De-ionised Water	Lactic Acids
Hydrogen peroxide	Nitric Acid up to 35%
Molasses	Orthophosphoric Acid-dilute concentrations
Sodium Hypochlorite	Sulphuric Acid - 50%
Ethylene Glycol	Citric Acid
Petrol and	Hydrochloric Acid - 20%
Petrochemicals	
All Hydroxides	

PHYSICAL PROPERTIES

Coating Specification	200 – 250µm per coat
Recommended coating thickness	400 – 500 μm (2 coats)
Shelf-life	12 months
Pot life	Generally 30 minutes
Gel Time	Dependent upon ambient substrate temperatures
Final Cure Time	6 hours @ 20°C
Coverage @ 250 µm	According to profile on steel, ± 3.75 m²/per kit

ADVANTAGES

- The solvent free formulation ensures no shrinkage, resulting in a wet film thickness being equal to dry film thickness (up to 150µm per coat).
- Application by paint brush, roller or airless spray.
- No toxic fumes when used in enclosed area though adequate ventilation is advised.

OPERATIONAL TEMPERATURE RANGE

220°C plus continuous for pneumatic flow. Immersion temperature dependent on contents.

SANS 1217 Results

	Evaluation	Requirements
Resistance to indentation	83	80 min
Adhesion (MPa)	15.8	15 min
Water absorption (g/m ²)	9.5	10 max
Resistance to water	No defects	No Defects
Cathodic disbondment	5.7mA	30 max
Disbonded area	0mm ²	600 max
Impact Resistance (J)	>10	4 min
Resistance to MEK	Complies	No defects
Di-electric strength (kV/mm)	4.6	10 min
Odour and taste	Complies	Not objectionable
Salt fog test (7 weeks)	No visible defects	None

SURFACE PREPARATION

STEEL:

- 1. Steel surfaces should be dry grit blasted to SA 2% with a blast profile of between 50 70 $\mu m.$
- 2. Ensure that the surface is free of laitance, oil and grease contamination. Coating must be applied within 4 hours of blasting.

NOTE: All steels should be free of any chemical residues prior to coating and dry grit blasting.

CONCRETE:

Do not coat concrete that has not fully cured (28 days) or has been treated with a hardening solution unless

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previously tested. All surfaces are to be washed and then acid washed with a mild hydrochloric / sulphuric solution (not exceeding 5%) to ensure the removal of all grease and other contaminants leaving the concrete visually clean. The entire surface must then be flushed with water and allowed to dry.

APPLICATION

- To ensure adequate curing, minimum substrate temperature should be above 10°C.
- Ensure no ingress of water during mixing.
- Mix resin thoroughly using a low-speed power drill (400 rpm. max for 2 minutes).
- Pour all the hardener into the resin and mix thoroughly until a uniform colour is achieved. All of the mixed product should be split into shallow paint roller trays and applied without delay. If a second coat is required, it should be applied whilst the first coat is still tacky to the touch.

DO NOT MIX RESIN AND HARDENER UNTIL READY TO COMMENCE.

TYPICAL PHYSICAL PROPERTIES

Compressive strength	118 MPa
Tensile strength	46 MPa
Flexural strength	81 MPa

APPLICATION TEMPERATURE

Material	10°C - 30°C
Surfaces	10°C - 40°C
Ambient	10°C - 40°C
Humidity	0 - 85%

TECHNICAL TIPS FOR WORKING WITH NORDCOAT 2:

Working time and cure depends on temperature and mass:

- The higher the temperature, the faster the cure.
- The larger the mass of material the faster the cure.

To speed up the curing time at low temperatures:

- The lower the temperature, the longer the cure.
- In cold weather, store kits in a warm area and warm the resin to at least 15°C before mixing.
- Pre-heat repair surface until warm to the touch.

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PROTECTION:

- All work is to be done in a well-ventilated area.
- Overalls and eye protection required.
- Refer to Material Safety Data Sheet.

STORAGE:

Store indoors on pallets at temperatures between 10°C and 35°C. Keep container tightly closed and away from acids and oxidizers. If product is removed from container do not return it to original container as contamination may have occurred.

NOTE: APPLY NORDCOAT DIRECTLY TO THE STEELWORK AND ENSURE THAT ALL OTHER COATINGS / PRIMERS HAVE BEEN THOROUGHLY REMOVED. IF A PREVIOUSLY COATED AREA IS TO BE OVERCOATED, PLEASE CONSULT NORDBAKS TECHNICAL SERVICES DEPARTMENT.

DISCLAIMER:

The information provided in this data sheet including the recommendations for use and application of this product are based on our knowledge and practical experience and laboratory tests of the product as at the date hereof. This data sheet shall be used as a guide to the user's application.

This product has been designed for specific applications based on normal working and operating conditions, and although it may be used in different applications and working conditions such instances are beyond our control. Therefore Nordbak shall not be liable for the suitability/merchantability of our product in your application unless we have specifically advised so in writing. Accordingly, we advise that you conduct your own investigations to confirm the suitability of our product, as it ultimately remains the user's responsibility to protect property and persons against hazards emanating from the handling and use thereof. Accordingly, any civil liability as a result of damages, injury, or death, in respect of the information in this data sheet, or any other written or oral recommendation(s) regarding the suitability of this product, are hereby excluded. Furthermore Nordbak shall not be liable under any circumstances for any consequential or incidental damages of any kind, including but not limited to loss of profits.

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