

NORDCOAT 1 SPECIAL

Technical Data Sheet February 2023

6 X 1kg PART NUMBER 8110-01003 10kg PART NUMBER 8110-01050

CORROSION, ACID AND SOLVENT RESISTANT WATERPROOF COATING

Tested against and complies with South African National Standard 241 (Drinking Water)

TECHNICAL DATA

Components	Two Parts – Resin & Hardener
Appearance (Resin)	White
Appearance (Hardener)	Amber
Kit sizes	6 x 1kg
	10kg

DESCRIPTION:

NORDBAK® NORDCOAT 1 SPECIAL is an outstanding corrosion, acid resistant and waterproof coating which can be used on both concrete and steel, as well as a wide variety of other substrates. NORDBAK® NORDCOAT 1 SPECIAL is ideal for coating at low ambient temperatures.

NORDBAK® NORDCOAT 1 SPECIAL is a two-part 100% solids co-polymer coating, giving maximum coating thickness in a one-coat application 125-150µm.

RECOMMENDED APPLICATIONS

Food Processing Plants Acid Production Plants
Sugar Mills Water Purification and Storage

Chemical Plants Sewerage Works
Battery Bays Fruit Processing

Acid Storage tanks (Dilute) De-ionised Water Storage Tanks

Mineral Extraction Plants Laboratories

Steam Cleaning Bays Electro Winning Plants
Electro Plating Plants Cold Storage Rooms
Fish Processing Factories Fertiliser Factories
Abattoirs Animal Cages
Dairies and Cheese Factories Petrochemical Plants

GENERAL CHEMICAL RESISTANCE - IMMERSION

Hydrochloric Acid - dilute concentrations

ACIDS	MISCELLANEOUS
Acetic Acid	Deionised Water
Lactic Acid	Hydrogen Peroxide
Nitric Acid - dilute solutions	Ethanol
Phosphoric Acid - dilute concentrations	Sodium Hypochlorite
Sulphuric Acid up to 50%	Ethylene Glycol
Maleic Acid	Petrol & Petrochemicals

All Hydroxides

PHYSICAL PROPERTIES

This product tolerates application to concrete and steel that have not been prepared well or are not dry. This coating has a very fast gel time for quick repair applications.

Smoke Toxicity Index	2
Coating Specification	125 - 150μm per coat. Maximum coating thickness recommended 250μm - 300μm (2 coats)
Shelf life	12 months
Pot Life	Up to 20 minutes
Gel Time	Generally, under 45 minutes at ambient temperatures.
Final Cure Time	24 hours
Coverage	±2m²/kg dependent on profile

SANS 1217 Results

	Evaluation	Requirements
Resistance to indentation	95	80 min
Adhesion (MPa)	17.7	15 min
Water absorption (g/m²)	8.9	10 max
Resistance to water	No defects	No defects
Cathodic Disbondment	16mA	30 max
Disbonded area	0mm²	600 max
Impact Resistance (J)	>10	4 min
Resistance to MEK	Complies	No defects
Di-electric strength (kV/mm)	33.4	10 min
Odour and taste	Complies	Not objectionable
Salt fog test (7 weeks)	No visible defects	None

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

130°C continuous for pneumatic flow. Immersion temperature dependent on contents.

SURFACE PREPARATION

STEEL:

- 1. Steel surfaces should be dry grit blasted to SA $2\frac{1}{2}$ 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 previously tested. All surfaces are to be washed and then acid washed with a mild hydrochloric / sulphuric solution

NORDBAK® has a wide variety of resin systems now available. **Crusher:** NORDBAK® Fast-set and Deep Pour Grouts, NORDBAK® Trowel mix, NORDBAK® Primary, High Performance and Standard **Backing Compounds:** Wearing compounds include NORDBAK® **High Temperature Wearing Compound:** NORDBAK® High Temperature Pneu Wear, NORDBAK® Regular Wearing Compound, NORDBAK® Nordwear 5, Nordwear 8 and Nordtile wearing compounds and the Nordcoat Acid resistant coating range.



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(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.

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 1 SPECIAL:

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 between 15 - 25°C before mixing.
- Pre-heat surface until warm to the touch.

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 NORDBAK®S 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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