01 / PRODUCT POSITIONING

N500 Positioning and Packaging

N500 Heavy-Duty Polyaspartic Polyurea Corrosion-Protection Coating

Long-term protection of steel structures and coastal industrial facilities.

Part A is an aliphatic isocyanate and Part B is a polyaspartic ester resin. They cure to form a continuous coating for weathering, corrosion and impact protection of steelwork, port machinery, tank exteriors and external pipe surfaces.



2 kg (A 1 kg + B 1 kg)



20 kg (A 10 kg + B 10 kg)



N500 corrosion protection for port steelwork

Core applications

Industrial steel structures, port machinery, coastal facilities, external protection of storage tanks and pipelines.

Select the system for the corrosion environment, substrate, primer, film thickness and maintenance interval. Assess service life for the complete system.

02 / TYPICAL TECHNICAL DATA

Technical data and evidence limits

Item	N500 technical data / requirements
Components and ratio	A:B = 1:1 by mass
Colors	Industrial grey, white, clear or project-specific colors
Indicative consumption and film thickness	1.0 kg/m² ≈ 0.95–1.0 mm
Surface dry / through dry	1–2 h / ≤24 h (at 25°C, reference)
Tensile strength / elongation at break	≥10 MPa / ≥150% (company technical requirements)
Adhesion to steel	≥5 MPa (company requirement; depends on preparation)
Steel surface preparation	Blast-clean to Sa 2½ when required by the project
Total system dry film thickness	Design for the corrosion category and coating system
Application environment	−5°C to 40°C; relative humidity ≤85%

Verify the mixing ratio against the supplied label and batch documents. Surface and through dry are drying times. This TDS gives no fixed pot life, recoat interval or number of coats.

Evidence and test scope

Report TL26080331 lists N100–N700 under one submitted sample name without results by model. Sample results: tensile strength 13.00 MPa, elongation at break 177%, adhesion to steel 5 MPa and abrasion loss 8 mg. Immersion in 3% NaCl for 1,000 h (GB/T 30648.1-2014) is a saltwater immersion test, not neutral salt spray. Results apply only to the submitted sample and test conditions.

Company laboratory records

Salt spray for 2,000 h and artificial weathering for 4,000 h are company laboratory records independent of TL26080331. Check the salt spray record for method, substrate, scribe, film thickness and assessment criteria. These durations do not establish service life or warranty. Refer to the batch COA for delivered properties.

03 / APPLICATION SCENES

Application scenes



Industrial equipment enclosure spraying



Port electrical cabinet protection



Construction machinery component spraying



Exterior protection of construction machinery

Illustrations are for application selection. Confirm suitability for actual project conditions.

03 / APPLICATION SCENES

Application scenes (continued)



External corrosion protection for tanks and pipes



Cargo compartment coating (verify service conditions)



Industrial steelwork corrosion protection



Coastal outdoor equipment protection

Illustrations are for application selection. Confirm suitability for actual project conditions.

Model selection and prerequisites

Assess the N500 system for heavy-duty corrosion protection of steelwork and coastal facilities, and N100 for general industrial surfaces. For roof, terrace or sound tile waterproofing, assess N300 for long-term weathering or N700 for general weathering. Assess N200 for a clear decorative topcoat.

For outdoor cabinets, check the metal substrate, existing coating compatibility and equipment requirements. For open steel decks, check slip resistance for the work area and project specifications. Confirm the system on a site test patch.

04 / APPLICATION & INSTALLATION

Application and System Design

01 Substrate preparation	Remove oil, rust, dust and loose objects; sandblast or shot blast to Sa 2½ when required by the project, and control roughness.
02 Matching primer	Select a compatible primer for the substrate (e.g., carbon steel, galvanized steel or aluminum) and project requirements. Check primer dryness, cleanliness and recoating conditions.
03 Mixing and application	Components A and B are accurately weighed and mixed thoroughly according to the mass ratio of 1:1; refer to 1.0 kg/m² to form a coating of approximately 0.95–1.0 mm.
04 Film thickness acceptance	The continuous coating is formed in multiple passes; the film thickness of the complete system is designed according to the corrosion grade, compatible primers and intermediate coats, and corner and weld reinforcement requirements.

Application limits

Evaluate N500 for exposed steelwork, port equipment, tank exteriors and external pipe surfaces. Linings, immersion, strong solvents and other aggressive chemical media require separate compatibility and resistance testing. Specify preparation, primer, stripe coating, total film thickness and maintenance. Verify adhesion on a site test patch before full application.

Verify substrate preparation, mix ratio, coating consumption, film thickness, temperature, humidity and curing conditions on the site test patch.

05 / COLOR, STORAGE & SAFETY

Colors, storage, safety and traceability

Colors and packaging

Industrial grey, white, clear or project-specific colors. Parts A and B are supplied together. Confirm color, net weights and labels against the order and supplied batch.

Storage

Keep both components sealed in their original containers in a cool, dry, ventilated place. Protect against moisture, direct sunlight and heat. Check the product label and supply documents for shelf life and storage temperature.

Safe handling

Wear protective gloves, goggles and appropriate respiratory protection for mixing and application. Maintain ventilation and manage the two components separately. Consult each component’s SDS for hazards, first aid, transport and disposal.

Sources and responsibility

1 N500 TDS: intended use, typical values and system requirements.

2 TL26080331: third-party report on submitted specimens.

3 Company laboratory: separate salt spray and artificial weathering records.

4 Batch COA and project confirmation: delivered properties and project suitability.

Technical support

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