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.

Typical technical data

Components and mixing ratio	A:B = 1:1 (mass ratio)
Color	Industrial grey, white, transparent or project-customized colors
Indicative consumption and dry film	1.0 kg/m² ≈ 0.95–1.0 mm
Surface dry / through dry	1–2 h / ≤24 h (25°C reference)
Tensile strength / elongation	≥10 MPa / ≥150%
Adhesion to steel	≥5 MPa (related to processing method)
Steel surface treatment	Sand blasting/shot blasting to Sa 2½ when required by project
Total system dry film thickness	Designed according to corrosion grade and supporting system
Application environment	-5°C–40°C; relative humidity ≤85%

Consumption and film thickness are indicative. Tensile strength, elongation and adhesion to steel are company technical requirements.

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 data notes

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.

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.



Coastal outdoor equipment protection

Application illustrations



Industrial equipment enclosure spraying

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.

Application illustrations (continued)



Port electrical cabinet protection



Construction machinery component spraying

Application illustrations (continued)



Exterior protection of construction machinery



External corrosion protection for tanks and pipes

Application illustrations (continued)



Cargo compartment coating (verify service conditions)



Industrial steelwork corrosion protection

Illustrations show applications or samples and do not constitute project-case or test evidence.

Application procedure

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.

Packaging, storage and safety

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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