01 / PRODUCT POSITIONING

N100 Positioning and Packaging

N100 High-Hardness Industrial Polyaspartic Polyurea Protective Coating

A+B two-component | XDI+German Covestro HMDI composite weathering system

Clear, industrial light gray, white, support color customization.

Part A uses an isocyanate system based on XDI and Covestro HMDI. Part B is a polyaspartic ester resin. N100 protects equipment, machinery, vehicle exteriors and above-water dock facilities. It also provides clear protection for outdoor timber. Select the system for coastal building exteriors according to the substrate: concrete, firmly bonded tile or stone.



2 kg kit (A 1 kg + B 1 kg)



20 kg kit (A 10 kg + B 10 kg)

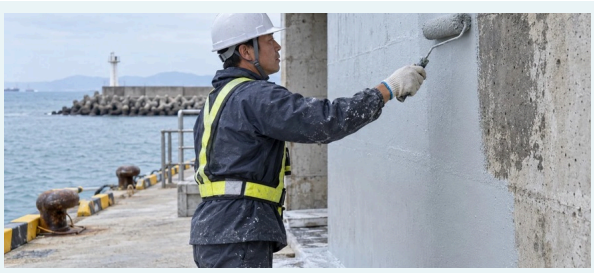
Packaging shown: Parts A and B. Specifications, color and labels follow the supplied batch.

Core applications

Industrial, vehicle and dock facilities; outdoor wood transparent protection; coastal building waterproofing.



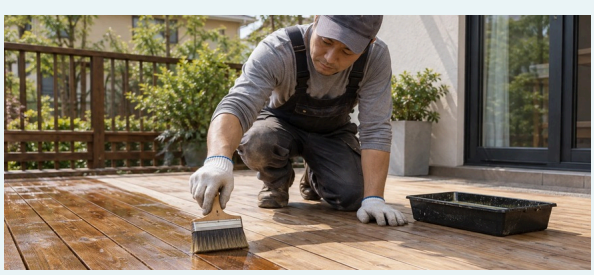
Machinery component spray coating



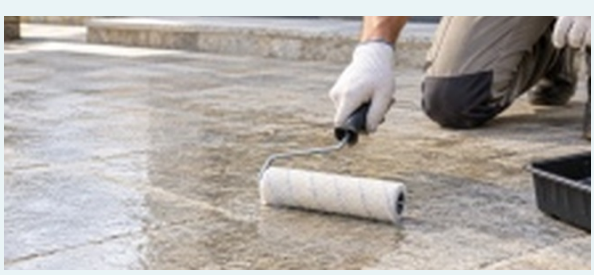
Coastal dock facility protection



Vehicle cargo bed protection



Brush coating on timber decking



Terrace stone



Electrical enclosures

Application illustrations only; not project-case or test evidence.

02 / TYPICAL TECHNICAL DATA

Technical data and evidence

Item	Reference value
Company internal hardness	Shore D approximately 65
Tensile strength	13.00 MPa
Elongation at break	177%
Concrete adhesion	4 MPa
Tile adhesion	7 MPa
Steel adhesion	5 MPa
Wear resistance	8 mg
Water impermeability	0.4 MPa, impermeable for 2 hours
Saltwater immersion resistance	3% NaCl, 1000 h
Impact resistance	100 kg·cm
Solids content	92.6%

Evidence and limits

Except for in-house hardness, these are results for the submitted sample in report TL26080331. The report lists the N100–N700 series without separate results by model. Abrasion used a CS-10 wheel, 750 g load and 500 revolutions. After 1000 h in 3% NaCl solution, no blistering, wrinkling, obvious discoloration or peeling was observed. Results apply only to the tested sample and conditions. They do not guarantee every N100 color or batch. Saltwater immersion is not a salt-spray test and does not predict service life.

"About 30% harder than N300" is an internal comparison of the same conditions and the same Shore D scale within the company, not a third-party indicator. Shore A and Shore D may not be directly converted or calculated as a percentage. Actual delivery is subject to batch COA and project confirmation results.

Application limits

Assess only non-critical exterior surfaces. Mask brake and steering components, hot exhaust parts, electrical connections and service markings before coating. De-energize, close and mask electrical enclosures. Use only on non-food-contact surfaces of cold-chain equipment. Continuous seawater immersion, splash zones, aggressive chemicals and sustained negative-side water pressure require specific verification. Verify compatibility before coating asphalt, membranes, old flexible waterproofing or oily or waxed surfaces. Bathrooms and persistently damp enclosed spaces are not recommended. Timber protection does not establish biocidal, mildew-resistance or internal wood-preservation certification. Water beading does not guarantee lasting waterproofing. Clear finishes may alter appearance; white finishes do not establish thermal-insulation certification.

03 / APPLICATION SCENES

Applications

Industrial grade surface protective coating with high hardness, wear resistance, high adhesion, corrosion protection and waterproofing. Surface protection of equipment shells, construction machinery, vehicle chassis and cargo boxes, and dock ground facilities; transparent protection of outdoor wooden floors, wooden house exterior walls, and wooden railings; supporting systems for the outer surfaces of coastal buildings such as concrete, solid ceramic tiles, and stone are determined based on the base material.



Vehicle chassis exterior protection



Outdoor timber



Coastal buildings

Images illustrate applications and do not document a project or test result. Use N100 for industrial surface protection. For roofs, terraces or sound tile requiring waterproofing, assess N300 for long-term weathering or N700 for general weathering. For heavy-duty steel corrosion protection, assess the N500 system.

System Design and Installation

01 Accurate mixing
A:B = 1:1 by weight. Pre-stir each component separately, weigh accurately and mix thoroughly in small batches. Apply within the confirmed pot life. Do not estimate by volume or by eye. Spray, roll or brush; complete a test patch before full application.

02 Metals, equipment and vehicles
Remove oil, rust, salt, dust and deteriorated old paint; the rust removal grade, primer, layer and total film thickness are designed according to corrosion conditions, and the compatibility of the old coating is first confirmed.

03 Timber and wooden components
Check the tree species, moisture content, old wood oil, oil wax and old paint; first confirm the adhesion, transparency, color difference and final appearance, and deal with details such as joints and ends.

04 Concrete, Tile & Stone
The base layer must be firm, dry, and free of looseness, hollows, oil stains, and standing water; cracks, internal and external corners, and drainage details must be handled according to the plan. For transparent projects, the color difference and appearance must be confirmed first.

05 Application window and compatible system
Confirm mixed-material pot life, recoat interval, dilution, application rate, film thickness and cure time before service with the supplier and an on-site test patch. Do not transfer values from other models. Before adding N200 as a topcoat, verify compatibility and intercoat adhesion.

Storage, Safety and Support

Packaging and storage
A/B matching packaging is provided according to the order, and the specifications are subject to the label. Store in original packaging, sealed, dry and ventilated, away from moisture, sunlight and high temperatures; storage temperature and expiration date are confirmed with labels and supply documents.

Safety
Take ventilation, personal protection and construction protection measures according to SDS requirements. This table does not replace the site plan, SDS or batch COA.

Quality and compatibility
For enquiries, please provide the region, substrate, area, specific use and color requirements. Founded in 2016; raw material synthesis, formula research and development, production and application services.

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