



INNOVATIVE SOLUTIONS FOR RUST AND CORROSION

NIPPON CRS[®]

NIPPON C2M

NIPPON CP

NIPPON HW

NIPPON VLS

NIPPON CRS®

Corrosion Retardant Solution

NIPPON CRS® primer is a water-borne coating that pulls itself up to 300 microns deep into the microstructure of tightly-adhered-to-rust, ionically bonding to the surface of the metal as it drives out oxygen and encapsulates tightly-adhered-intact-rust.

Using NIPPON CRS and NIPPON C2M together creates an extremely robust anti-corrosion solution that is safe for you, your people and the environment.

NIPPON CRS primer eliminates up to 77% of prep on typical industrial/marine applications, doing away with gritblasting, grinding, and the entire practice of taking surfaces to “white metal” cleanliness. All that is usually needed is degreasing and pressure washing to remove loose rust and contaminants.

The key to the primer’s performance is its ability to penetrate, flow, and diffuse through tightly-adhered-to-rust, scavenging oxygen on its way and therefore removing one of the necessary elements of corrosion.

Ideal for challenging corrosion problems, including confined spaces, hard-to-reach areas, etc. Excels in demanding applications: concrete-encased metal (e.g., rebar in offshore foundations); mining machinery, pipes, and infrastructure; tanks; bridges, columns and beams; corrosion-under insulation (CUI); ship decks, hulls, and cargo holds; offshore metal stairs, ramps and roofs.

Benefits:

- Simplified surface preparation
- Can be applied via brush, spray or roll
- Penetrates rust and bonds to metal below
- Extends time between maintenance cycles
- 1K Water-borne product
- Flexible re-coat window (weeks vs hours)
- Ease of clean-up (water and solvents)
- Remarkable ease of application
- Minimal odor
- Water resistant



NIPPON C2M

Cement-to-Metal Coating

NIPPON C2M Cement-to-Metal coating is a universal, highly flexible, cement/polyurethane blend that bonds to tightly-adhered-to-rust. It prevents further corrosion to all exposed metals and metals used for reinforcing concrete, protecting against future concrete spalling and further deterioration of valuable infrastructure.

NIPPON C2M IS A 2-component coating consisting of a polyurethane binding agent emulsion and a super-fine cement blended with micro-aggregates. It dries to a smooth, “float-coated cement-feel” finish.

Applications includes concrete-encased metals (e.g., rebar in existing or new offshore foundations); exteriors of saltwater-submerged pipes, offshore metal or concrete structures, industrial exhaust systems, corrosion under insulation (CUI), boilers, furnaces, and HVAC equipment, cranes and hoists; and metal walkways, doors, and roofs in saltwater-spray environments.



Benefits:

- Simplified surface preparation
- Can be applied via brush, spray or roll
- Penetrates rust and bonds to metal below
- Extends time between maintenance cycles
- Extremely cost effective
- Resists abrasion, freeze/thaw, thermal shock
- Extreme climate resistance (-80 to +500F)
- Ease of clean-up (only water)
- Odorless
- Minimal labor requirements
- Uniquely flexible (up to 90 degrees)
- Resists various chemical environments

NIPPON CP

Concrete Permeating Solution

NIPPON CP is a one-component VOC-free, environmentally-friendly, water-borne hydrogel that is sprayed onto dry or wet concrete.

It permeates up to 150mm (6 inches) deep into concrete to displace corrosive chlorides and salts, leaving an aqueous, breathable, water-resistant surface film.

NIPPON CP can also be used as a primer for NIPPON HW Concrete-Hardening/Water-Resistant Solution, which then seals the concrete. When properly applied, both products greatly increase concrete's durability, specifically protecting reinforcing steel (e.g., rebar) from new corrosion and subsequent concrete spalling.



NIPPON HW

Concrete Hardening/Water-Resistant Solution

NIPPON HW is a dual purpose product that provides long lasting protection against water infiltration, and deep introduction of a catalytic chemistry that reacts directly to alkali. It creates alkali hydrates that will become a complex silica hydrogel that bonds within the voids found in concrete.

NIPPON HW passes around various aggregates and fill empty spaces in the concrete matrix, increasing the top-layer density of cured concrete while reducing its porosity, providing long-lasting protection against water infiltration. It can penetrate up to 150 mm (6 inches) into concrete, converting alkali into alkali hydrates that then become a complex silica hydrogel. The hydrogel then moves micro-aggregates into the voids found within the concrete matrix, bonding them to the concrete. The final, natural compound lessens the likelihood of future, adverse alkali reactions within the treated layer of concrete.

NIPPON HW Concrete Hardener does not alter the appearance of the concrete, but enhance its surface traction, making it ideal for new or existing concrete structures such as bridges, decks, airport runways, parking garage ramps, walkways, entrances, etc.



NIPPON VLS

Versatile Liquid Shield

NIPPON VLS is a coating that lubricates, electrically insulates, and blocks moisture/saltwater from corroding metal and other surfaces. The protective, never-dries penetrant wicks across surfaces, displacing water, and creating a long-term, almost impossible-to-remove barrier to harsh outdoor elements.

The VLS Shield prevents electrolysis and premature failure of electric and electronic components, as well as lubricating mechanical parts in heavy-duty industrial/marine equipment and structures. VLS Shield is available in three different formulations:

VLS Thin Film: aerosol or liquid. Thin formulation "floats" to where it's needed. Dielectric to 40.6 kVA. Use on electronics, copper, steel, alloys, stainless steel, galvanized, aluminum, iron, and other metals. Industry Canada approved. Approved to MILR-21006 (Ships) Navy Ballast Tank Protective Coating Specification. Maximum surface temperature application is 52°C/125°F; bubbles and smokes at 82°C/180°F.

VLS Industrial Thick Film: thixotropic formulation. Dielectric to 9.8 kVA. Suitable for saltwater submersion, bridges, HD machinery and vehicles.

VLS Heavy Duty Thick Film: twice as thick as the Industrial film, HD is the ultimate in anti-corrosion. Formulated for extremely harsh environments: offshore oil rigs, wind turbines, underwater pipes, inner barge hulls, etc. Maximum surface temperature application is 43°C/109°F; bubbles at 54°C/129°; smokes 82°C/179°F.

All VLS Shield formulations can last for several years: grinding or 15,000 psi pressure washing will not remove them. They do not attract dust or dirt, making them suitable for agricultural machinery. VLS is approved for use in food processing facilities.

If starting with rusted metal or spalled concrete, remove loose materials using degreaser and pressure washer. Prime with NIPPON CRS Corrosion Retardant Solution to encapsulate tightly-adhered-intact rust, then apply VLS Shield. For optimal protection, apply NIPPON CRS concrete permeating solution, then NIPPON C2M Cement-to-Metal coating, then VLS barrier lubricant.





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