

## NIPPON CP

### Concrete Permeating Solution

#### Description

NIPPON CP is a water-borne, green product that works by permeating concrete. NIPPON CP is not a silicate, sodium silicate or lithium-based product, but a hydrogel. NIPPON CP is a 1 K material, just stir or shake before using. NIPPON CP is amorphous in the absence of water and possesses the ability to repeatedly re-hydrate while performing three main functions:

- Permeates concrete substrates from 5.5 to 6 inches (up to ~150mm) below the surface.
- Removes chlorides and salts from concrete substrate surfaces as well as below.
- Creates an aqueous film that protects against water while allowing the concrete to continue to breath.

**NOTE: NIPPON CP is not a structural or restorative product and should only be used on substrates that are structurally sound.**

#### Basic Usage

NIPPON CP is an ideal tool for stopping spalling and improving concrete's durability against the environment. NIPPON CP is not a structural product. It is imperative to confirm with an engineer that the structure is sound. Like any anti-corrosive product, it stops further corrosion, however, existing damage will not be restored. Typical concrete such as most Portland based batch mixes are an ideal platform for NIPPON CP.

NIPPON CP will not change the surface of concrete substrates. While application is taking place, a light sheen may appear, and if salt is present, it too may rise to the surface. The salt must be washed off. Besides salt, NIPPON CP will remove chlorides and permeate deeply below the surface of concrete. NIPPON CP can access up to 5.5 to 6 inches (up to ~150mm) into a standard concrete medium. This depth of permeation is not unusual.

After application, the concrete will be primed. Because NIPPON CP is a water-borne product, the surface of the concrete can be dry, wet or damp. Please note that if there is any pooling water in low spots of a slab, the water must be removed first. After application you can walk on the concrete right away, though it is preferred to wait until the complete application job is finished.

#### Shelf-Life

Shelf life is expected to be 5 years if container is new/sealed and stored in a cool, dry environment.

## HVLP-Spray Protocol

NIPPON CP spray application for small/restricted areas can be achieved with the use of HPLV spray equipment. Pressure and atomization are the key elements.

2000 PSI-138 bar is essential for proper application. This allows for proper separation of the active ingredients and the carriers which allows for integration and penetration of NIPPON CP. This spec can be found in a HPLV system.

Regulated spray pot pressure will apply best at 20-100 PSI / 1-7 Bar, this will be equal or slightly less at the fluid nozzle or tip at the gun/the length of spray lines.

Air pressure at the air cap on the gun should be at 40-80 PSI / 3-6 Bar to give the spray a finer mist.

A smaller tip size found in the HPLV equipment allows for less over spray, better containment of waste, faster application times, and reducing cost.

Larger airless equipment is better served for higher square meter / square foot projects where hoses and over-spray are less likely to affect the outcome.

## Cure Time

NIPPON CP does not cure in the traditional sense of "drying" once inside concrete. Typically, after 2 applications of NIPPON CP, the concrete should no longer accept more material. For best results before applying other top-coats, it is required to wait at least 12 hours, then flush surface thoroughly with water and allow to dry before continuing with any other coatings.

## Physical Properties

<b>Physical</b>	: Liquid
<b>Color</b>	: Clear, slight green tint (may vary due to ingredients)
<b>Odor</b>	: Slight
<b>Specific Gravity</b>	: 1.09 to 1.10
<b>Flash Point</b>	: None
<b>pH</b>	: 12
<b>Toxicity</b>	: None
<b>Boiling Point</b>	: 230°F / 110°C
<b>Freeze Temperature</b>	: 23°F / 0°C
<b>Hazardous Vapors</b>	: None
<b>Weight per gallon</b>	: 9.15 lbs. / 4.15 kg
<b>Environmentally</b>	: Neutral
<b>Shelf Life</b>	: 5 years if container is new/sealed and stored under proper conditions.
<b>Freeze harm</b>	: None (allow to thaw completely)
<b>Surface Bond</b>	: Excellent
<b>Flammability</b>	: None
<b>VOC/VOS content</b>	: None

Refer to our Material Safety Data Sheet (MSDS) regarding regulatory compliance, safety, hazards, spill procedures and disposal of this product. While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/ use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE.