

## **Before You Apply:**

NIPPON -HW has a highly reactive catalytic agent in a waterborne proprietary colloidal silicate base that produces a silica hydrogel below the surface and inside the concrete matrix.

NIPPON-HW **cannot function** if there are:

1. Other sealers on the concrete surface, this includes any NIPPON-CP that remains on the substrate from prior applications.
2. Polymers in the mix

## **Precautions:**

- Protect/cover all glass in and around the work area. NIPPON-HW will etch glass if it comes in contact.
- Cover everything not intended to be treated. Incidental damage may occur on unintended surfaces.
- Spills or spray droplets in contact with glass should be removed immediately by flushing with water.
- Some discoloration of aluminum may occur.
- Do not proceed with application of NIPPON-HW when ambient temperature and/or substrate temperatures are less than 40°F/4.5°C or forecasted to drop below 40°F/4.5°C during the next 6 hours.

## **Application/Job Site Conditions**

1. Low Temperatures: Do not proceed with application of NIPPON-HW when ambient temperature and/ or substrate temperatures are less than 40°F/4.5°C or forecasted to drop below 40°F/4.5°C during the next 6 hours.
2. High Temperatures: Should ambient or substrate temperature be 95°F or higher, cool surface with sufficient water so that the surface stays damp. Disperse puddled water.
3. Wind: Caution should be taken in windy conditions. Do not allow product to contact surfaces not intended for NIPPON-HW application.
4. Dry: If allowed to dry, NIPPON-HW can etch glass or dull shiny aluminum. If contact is made with glass or aluminum, rinse surface immediately with water before NIPPON-HW dries on surface.
5. Penetration: As a waterborne product, NIPPON-HW must have access to the surface. Any previous coatings or heavy buildup of oil or grease must be removed.

6. Product strength: Do not dilute. Use as supplied.
7. Applying impervious coatings, coverings, etc.: Once NIPPON-HW is applied, wait 28 days on new concrete and wait 72 hours on existing concrete before applying impervious coatings, coverings, etc.
8. Fractures: NIPPON-HW only seals the concrete itself, not fractures.

## **Shelf Life**

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

## **Maintenance**

Special maintenance of treated area is not required.

## **Application Procedure For Established/Cured Concrete**

- NIPPON-HW must be applied with a high pressure airless sprayer with spray tip size as follows:
  - .013" 25 degree fan tip for steel troweled smooth concrete
  - .015" - .019" 25 degree fan tip for porous or weathered concrete
- Application of the material with the airless sprayer shall be at a 90 degree angle to the surface of the wall or floor.
- Pre-wet area of application with water to cool concrete that is extremely hot (95°F/35 °C or higher).
- Pooled and puddle areas must be dispersed. Continue to keep damp until NIPPON-HW has been applied.
- Apply NIPPON-HW at a rate not less than 1 liter to 5 m<sup>2</sup>/150 sq. ft. per U.S. gallon. Two applications of NIPPON-HW will be required, using a crosshatch pattern, to achieve this rate. The first application should be sprayed in an East-West direction. Spray the second application as soon as the surface sheen from the first application has dissipated (normally 10-60 minutes. Do not allow drying). The second application should be sprayed in a North-South direction. Apply wet on wet. For best results apply to maximum tolerance. This is accomplished when the sheen takes 15-20 minutes to dissipate.
- Start application holding spray tip approximately 8"–12"/200–300mm from concrete surface, make application using overlapping spray pattern with a fanning motion at the end of each pass.
- Entire area being treated is to be saturated, but do not allow NIPPON-HW to puddle. Disperse puddled areas with a broom 15–30 minutes after application is completed. Do not allow puddles of NIPPON-HW to dry.
- Always start application at lowest possible area and proceed to higher elevations. For vertical walls,
  - begin at the bottom with East-West, overlapping spray patterns. Work your way from the bottom to the top. Then, immediately go back over the same area just treated using a North-South overlapping spray pattern.
- Check whether NIPPON-HW has purged to the surface of concrete any oil, gas, greases and salts, etc. These must be thoroughly washed or abraded away before adhesives or coatings are applied.
- When treatment is to weeping hydrostatic concrete, repeat step number 3 until weeping stops.

- Important caution when applying coatings: following the application of NIPPON-HW, we recommend that the surface be thoroughly cleaned prior to coating to remove any potentially bond breaking contaminants that may have been purged to the surface.

## **Clean-Up and Safety**

- Caution must be taken, as treated surfaces may be slippery until completely cured.
- No special clothing, breathing apparatus, goggles or gloves are necessary, but in enclosed areas it is advisable to wear an appropriate respirator to avoid possible irritation to breathing.
- Attention should be made to watches, eyeglasses, etc., as NIPPON-HW can etch glass or discolor
- aluminum if allowed to dry.
- Clean equipment using water and mild soap. Never store spray equipment without cleaning and following manufacturer's recommendations for storage between usages.