# **Nanotechnological Industrial Coating**

**CPT-400** 

## PRODUCT DESCRIPTION

Nanoxraine is a leading-edge, patented, high-performance coating with extraordinary chemical resistance, heat stability and film durability. This hard film forming anti-stick coating is single component and will cure in ambient temperatures in about one hour. The CPT-400 forms both a mechanical and chemical bond to inorganic and organic substrates making it universal in its application. The CPT-400's resin system is a hybrid consisting of a unique methyl extended siloxane diol. This system is coupled with a unique nano-particulate that together provides leading-edge durability and longevity. This cutting-edge coating exhibits outstanding anti-stick, chemical, abrasion, impact, and UV resistance. The CPT-400 is a true break though in coating technology as it does not make any sacrifice in performance, application procedure or dry time. CPT-400 is also heat stable to over 1500 degrees F. CPT-400 is impervious to UV degradation, chemical attack, freeze thaw cycles and has a performance life of over twenty years. Over concrete, CPT-400 acts as a surface consolidator and surface hardener that extends the service life of mineral substrates. This remarkable coating will provide world class protection on a wide variety of surfaces including ferrous and non-ferrous metals, glass, plexi-glass, plastics and all other porous and non-porous substrates. CPT-400 is a penetrating non-yellowing, non-whitening and non-toxic product that is VOC and AQMD compliant. This coating exhibits outstanding weathering characteristics and is ideal for immersion service on marine, aerospace, architectural, construction, industrial and automotive equipment.

#### PERFORMANCE PROPERTIES OF DRY FILM

- Hardness: 6H ASTM D3363 on chrome treated aluminum
- Adhesion: 90 100 % ASTM D3359 on chromated aluminum
- Gloss: 90 @ 60 degrees
- Chemical Resistance: MEK, Acetone, Brake Fluid, and organic solvents
- UV Stability: Excellent
- VOC content: >100 grams per liter
- Outstanding Hydrophobic and Oleophobic surface properties
- Outstanding impact and abrasion resistance
- Phenomenally low surface energy and high slip characteristics

#### APPLICATION GUIDELINES

#### **Surface Preparation:**

Apply the coating only when the surface temperature is more than 5F or 3C above the dew point temperature of the surrounding air and relative humidity is below 85%, in order to prevent moisture condensation on the surface. Always apply test area before proceeding with entire application. The surface is to be clean and free of any foreign matter. The CPT-400 is applied in 1 coat - recommended thickness is 14-150 Microns dry depending on application and substrate. Product must be applied to a dry surface. Always apply to a test area before proceeding with entire application. Surface must be corrosion free at the molecular level although sanding may be sufficient a chemical cleaning and corrosion removal is recommended. Any existing corrosion may continue to propagate when coated that can lead to a coating failure in due course. Concrete: Concrete temperature must be at least 60F (16C) during the coating application. Blast areas to be coated using sharp, angular abrasive grit. All surfaces are to be vacuumed or blowndown with oil-free, moisture-free air. Use steel shot of SAE 230-330 to prepare surface using a "Blastrac®" or similar device. The operator of this device should be experienced; concrete can be damaged by holding in one localized for extended times or using shot of improper size. The concrete surface shall be finished with a rough edge, free of chemical or environmental contamination, dry, clean of loose debris and of adequate surface strength. Neutralize acidic and alkaline surfaces, remove grease, standing oil, old coatings, sealants and dirt.

#### Mixing:

Mix product sufficiently. After mixing, pour Nanoxraine through a 60 mesh screen into a clean container to remove any large particles before spraying.

### **Application:**

Coating can be applied by brushing, rolling, spraying or squeegeeing. NOTE – Spraying offers the best results for filling pinholes and pores in concrete. All cracks, joints, bugholes, transistions and interfaces must be sealed or filled. Apply coating on all surfaces at wet film thickness of 2-4 mils (140 microns DFT max.). Airless pump 30:1 or higher; spray tips 0.017 to 0.023 inch (0.4-0.6 mm); fan pattern 6-12 inches (15-30 cm); and new spray hoses shall be used. All spray equipment must be checked and approved by SEI Chemical personnel before the start of the job. Brush & Roll Applications: Use only natural bristle brushes for brush applications and 3/8 inch (9.5 mm) nap roller pads with phenolic cores for rolling applications.

- 1. Mix or shake the product well before application.
- 2. Product can be applied by spraying, dipping, brush, or by roller.
- 3. Apply uniformly.
- 4. Avoid pooling or excessive product application. CPT-400 is considered a 'thin film' performer.

Using a certified applicator is recommended.

#### **COVERAGE**

CPT-400 exhibits excellent opacity, coverage and leveling when spray applied. Apply CPT-400 at 600-800 sq/ft per gallon.

#### **CURING**

Dry to the touch in 1 hour and full cure in 6 hours depending on the ambient temperature. Do not place coating into service until desired cure is achieved.

Dry to the touch: 45 minutes to 1 hour

Semi-full Cure: 6 hours Full Cure 3-6 days.

## **CLEAN-UP, STORAGE & HANDLING**

Xylene, Toluene or Acetone can be used for clean-up. Do not thin. Clean tools immediately after use. Solvent cleaning can be followed by a wash with soapy water. Cured material cannot be removed with solvent. Proper clean-up of equipment is essential.

Storage Life: Minimum of 1 year for unopened containers.

Pot Life: Usable life will be determined by the precautions taken to keep containers tightly sealed and protected from moisture. Disposal: Incinerate at a facility that is permitted for waste disposal. Must be stored and handled in compliance with all current local regulations for flammable liquids. Store: cool, dry, ventilated (5C-35C/40F-95F), out of sunlight and moisture.

## **PACKAGING**

1-gal pail, 5-gal pail, 55-gal drum.

DISCLAIMER

The information provided is to be used as a guide and users should perform their own tests to ensure performance in their application. All data, statements, and recommendations made herein are based upon information we believe to be reliable, but are made without any representation, quarantee or warranty of accuracy.

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