

## **Nanotech Surface Solutions™ Diamond-X**

### Product Information

#### **Description**

Highly durable abrasion-resistant coating for metals, lacquered and powder-coated surfaces.

- Clear, colorless liquid based on silanes
- Contains solvents (not water)
- Abrasion-resistant
- Corrosion resistant
- High impact strength

#### **Intended use**

- Ideally suited for water/dirt-repellent & sealing of non-absorbent materials in outdoor and indoor areas
- Extremely resistant to abrasion
- Generates an invisible shield
- Resistant to seawater and salty air
- Easy to clean effect
- Ready-to-use product
- Highly reactive and resistant against a large number of different organic solvents
- Treated surfaces remain clean for prolonged periods and develop easy-to-clean properties
- Protected surfaces generate a reduction in cleaning and maintenance costs

#### **Application**

Can be used on metals such as:

- Ferrous metals
- Non-ferrous metals
- Galvanized metals
- Varnished surfaces
- Powder-coated surfaces

**NSS Diamond-X** can be used in a vast variety of commercial applications such as:

- Military industry (battle ships, airplanes, tanks, etc.)
- Steel industry (bridges, constructions, machines, etc.)
- Oil industry (pipe lines, platforms, coupling units, etc.)
- Ship industry
- Food industry (kitchens, ovens, metal countertops, etc.)
- Car industry (engines, paint top coat, etc.)
- Train industry (engines, train frames, paint top coat, etc.)
- Airplane industry (engines, paint top coat, etc.)

**NSS Diamond-X** is used undiluted. The amount to be applied (6-10ml/m<sup>2</sup>) depends to a large extent on the texture of the substrates surface and the application method and should be tested in advance.

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The surfaces to be treated need to be absolutely clean, degreased, dry and free from loose particles and separating substances before treatment.

During application the outside temperature and the temperature of the substrate should be within the range of +5 °C to +35 °C. **NSS Diamond-X** should not come in contact with water before or during application and should not be applied if it's raining or there's high air humidity.

**NSS Diamond-X** can be applied by spraying or by hand. In order to achieve the best result we recommend the following process:

### 1. Cleaning

Ultrasonic cleaning or any highly effective de-greasing process.

### 2. Application

- Can be applied by hand, through polishing/wiping with a soft pad (or soft cotton cloth, etc.)
- By spraying. Apply until a thin layer is visible.

#### Spraying parameters

Spraying with compressed air at ca. 2 bar

Blast pipe < 1 mm

Several thin layers with measured material feeding

### Functionality

**NSS Diamond-X** reacts with the substrate's surface and forms a mechanic abrasion resistant coating with very high bonding properties on metal. It generates very thin, transparent coatings with high impact strength and is resistant to alkali and corrosion.

The treatment with **NSS Diamond-X** does not require a chromate conversion coating of the substrate and is completely free from chrome and lead according to the Ordinance on Hazardous Substances

To determine the exact amount to be applied it is recommended to do a small test patch first.

### Product safety

Before considering the use of any chemical read its Material Safety Data Sheet thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

### Handling and storage

**NSS Diamond-X** should not come in contact with moisture.

Material should be stored at temperatures < 20 °C.

**NSS Diamond-X** has a shelf life of 12 months when stored in sealed original containers.