

## **Nano E.S. (HK) Ltd's TPX nano-TiO<sub>2</sub> photocatalyst solution**

### **I. Description:**

Nano E.S. (HK) Ltd's TPX nano-TiO<sub>2</sub> photocatalyst solution is a premium coating solution for interior and exterior surface substrate. It forms a transparent and durable coating for optimal photocatalytic effect on painted surface, wood, glass, metal, and other types of surface substrates. Nano E.S. (HK) Ltd's TPX nano-TiO<sub>2</sub> photocatalyst solution creates a self-cleaning and purifying effect on the treated surface.

Note: For optimal durability and adhesiveness of photocatalyst coating, it is recommended to treat the surface with Nano E.S. (HK) Ltd's PTA solution prior the application of TPX solution.

### **II. Surface Preparation**

The surface must be thoroughly cleaned and free of dust and grease before application.

**IMPORTANT NOTE: DO NOT THIN.** Diluting Nano E.S. (HK) Ltd's photocatalyst solution will degrade or null the photocatalytic effect of solution.

### **III. Application**

Nano E.S. (HK) Ltd's TPX nano-TiO<sub>2</sub> photocatalyst solution is applied using HVLP (High Volume Low Pressure) air compressor and spray gun. The nozzle size of the spray gun is recommended to be between 0.3mm to 0.5 mm, and air pressure at approximately 3.0kg/m<sup>2</sup> (or 4.25 x 10<sup>-3</sup> PSI) for fine mist coating and uniform film thickness. The recommended distance between spray gun and substrate is between 30cm to 50cm (or 1 ft to 1.5 ft). In order to make uniform coating, spray the desired surface at steady speed. Each coat of TPX solution must be dry to touch before the next coat of solution can be applied. Repeat coating until appropriate thickness of the film is reached.

#### **Usage Amount:**

Maximum thickness of 1.0  $\mu$ m: 270ml of TPX solution per one m<sup>2</sup> (or 0.85 oz/ft<sup>2</sup>)

Note: Exceeding maximum thickness of photocatalyst film will not improve photocatalytic effect of substrate. An opaque film might be observed on substrate with black or dark color due to uneven coating or excess amount of coating.

#### **Protective Gear:**

Although Nano E.S. (HK) Ltd's TPX nano-TiO<sub>2</sub> photocatalyst solution is non-toxic, it is recommended to wear protective goggle and mask when coating large area.

#### **Drying Time:**

Dry to touch: 2 to 5 minutes depending on condition.

Full hardness from 2H (equivalent to pencil lead) to 5H (equivalent to glass) is gradually reached after eight weeks. Avoid scratching the coated surface until the full hardness of the film is reached.

**IV. Storage and disposal recommendation:**

Store the unused solution in cool and dark condition. Do not refrigerate.

Dispose the solution by draining into water sewage disposal system.