



# InfernoWare™ Shield

## Application Instructions

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### General

**Coating Type:** Air cure, one part, factory blended

**Description:** Hybrid Ceramic Abrasion Resistant Coating

**Features and Benefits:** Room temperature air cure formula, no catalyst required

**Dry Film Thickness:** ~ 1 mil (25 microns)

#### Dry Time

- Dry to Touch: 30-50 min (depending on color)
- Recoat: 2 hrs

#### Precautions

- Do not dilute
- Do not heat cure
- Do not repackage
- Storage Temperature: Between 40- 80 °F (4-27 °C)
- Apply coating when air and surface temperatures are between 60-80 °F (15-27 °C) and relative humidity between 30-80%.
- Cooler temperatures or higher humidity may prolong drying and tack free time.
- Wait three weeks before cleaning the coated part

### Substrate & Surface

This coating can be applied to steel, glass, aluminum, some ceramics, some plastics, or primed surfaces.

#### Metallic Substrates

All surfaces must be clean, sound, dry, and free of any dirt, grease and other contamination. You can degrease with solvent such as xylenes.

Blast the surface of the metal to remove any rust, scale, or other contaminants. The blasted texture is necessary for maximum adhesion. Use clean and dry 46 to 100 grit aluminum oxide or alternative material. Do not use oily or contaminated blasting media. After blasting, do not touch any surfaces with bare skin or contaminated gloves where coating will be applied. Blow off the substrates using compressed air. Ensure the air supply is filtered from moisture and oil. Make sure that there is no residue left on the surface. Clean the surface



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with a solvent such as xylenes, if needed. Safety goggles or a face shield are recommended. Work in a well-ventilated area or wear a respirator.

#### **Other Surfaces**

Careful surface preparation is essential for the maximum performance of this material. Remove grease and other surface contaminants with a degreasing process. For example, use a degreasing solvent such as xylenes. Wipe the surface with the degreaser using a clean cloth followed by dry cloth wipe. Repeat this process several times until the drying cloth does not pick any dirt (color from the surface). Make sure to use clean, soft, absorbent, lint-free cloths and DO NOT dip the cloth into the solvent container.

### **Mixing and Thinning**

#### **Mixing**

Mix the InfernoWare Shield until no solids remain at the bottom of the container and the product is completely mixed. Incomplete mixing or insufficient dispersion of the solids may result in product failure. Do not dilute, the product is ready to use.

#### **Storage**

Store between 40- 80 °F (4-27 °C) in a dry and well-ventilated area. Keep container clearly labeled and tightly closed. Avoid contact with water. Opened containers must be carefully resealed and kept upright to prevent leakage. Keep away from heat, flames, static electricity. Containers are hazardous when empty as they contain product residues.

#### **Thinning**

Do not thin. Thinning might result in a change of coating performance.

### **Application Guide**

#### **Preparation**

Do not touch any surfaces with bare skin where coating will be applied. Only use clean gloves, such as nitrile or powder-free latex. Arrange parts for the best access with the spray gun. Ensure the spray gun's air supply is filtered from moisture and oil.



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### Spraying

Apply the coating with an HVLP gravity fed gun with a 0.8 mm fluid nozzle. The air pressure should be set to 20-25 PSI with the trigger depressed, resulting in an approximately 3-4" fan pattern. Spray from approximately 3-4 inches from the substrate until the surface is covered. Overlap subsequent passes by 90%, continuing to apply new coating while the previously applied pass is still wet. Spray with sufficient volume so the InfernoWare Shield does not dry spray, which is when the coating dries in the air before reaching the part. Allow coating to dry for at least 2 hours at room temperature before applying a second coating using the same parameters listed above.

For large substrates, you can use a gun with a larger fluid nozzle and adjust all parameters accordingly.

Allow the parts to air dry. Use caution to avoid touching the coating while it is curing. The parts will be tack-free after 30-50 minutes at room temperature and cured after 1 day at room temperature.

Please note that low temperatures or higher humidity may prolong drying and tack free time.

Coating parameters may need to be adjusted by experience to account for specific spray gun setups and application area airflow. Spraying a practice part is always recommended for initial spray gun setup.

### Handling After Spraying

Wait 3 weeks before cleaning the coated part.

Cleaning method: avoid harsh solvents such as acetone

Refer to product SDS for proper handling, disposal, cautions while using. Please contact InfernoWare [info@infernoware.net](mailto:info@infernoware.net) if you have any question concerning use and application.