

120 Valley Court Oak Ridge, TN 37830 Ph: 865-482-5717 FAX: 865-482-1281 zypcoatings.com

# Water-Resistant Ink/Coating of Titanium Dioxide

TAP Ink is a ready to use water-based, totally inorganic, pH-Acidic (like lemon juice) white ink that is designed to produce a tough, abrasion resistant and water-resistant coating on all substrates. The TAP Ink is ideal for marking and identification of parts, and is usable to 1472 F (800 C). Note that thinner coatings give the best results.

### **Key Attributes**

- Adherent to metals and ceramics with thermal cycles.
- Completely water insoluble after heating to approx. 125 C for >=4 hrs.
- Minimal outgassing on heatup ... with water as the species evolved.
- High-temperature stable. Does not glaze, melt, run, become tacky or chalk off.
- · Easily applied, like house paint
- Water-based; utensils are readily cleaned up with water [before drying]
- Good flexibility

#### **Ideal Use**

- Marking/Identification/Coding of parts being heat-treated
- Marking/Identification/Coding of tags used at high-temperatures
- Providing a water-insoluble mark or coating on a substrate

#### **Use Notes**

- 1. Resuspend the paint
- 2. Clean surface of oil, dirt, scale etc.
- 3. Apply a thin layer by air-spray or brush
- 4. Allow to dry before use. NOTE: Water insolubility requires drying at 125 C or higher. Can be achieved by spraying onto a warm substrate or using heat lamp or dryer.

## Safety Information

- · Consult SDS before use.
- Avoid breathing of spray/vapors.
- For industrial use only.
- Avoid Freezing



### **Specifications**

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	$IIO_2$ , $AI_2O_3$ , $P_2O_5$
Max Use Temperature	1472 F/800 C
Use Atmosphere	All
Fired Composition	Proprietary
Liquid Carrier	Water
Brookfield Viscosity (cps)	240-325 @2/60
Specific Gravity	1.12
Color	White
Shelf Life (months)	>12
Coverage (ft2/gal)	to 400
Coating pH	2
H F R Ratings	1-0-0
Substrate Use	All

Other: Water Resistance

After ambient-temperature drying ... Low

After 125 C, >=4hr ... High

### Sizes and colors

TAP Ink is a white-colored paint. Standard Sizes:

1 gallon pail

5 gallon pail

### CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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