

OPTOACE WP-Series

Moisture Proofing Agent

Water, moisture barrier; Oil resistant; Metal corrosion protection; PCB protection.

Characteristics

A unique fluorochemical coating solution to prevent damage from moisture.

Optoace is readily diluted in hydrofluoro ethers, such as Novec HFE 7200.

Easily applied to print circuit boards.

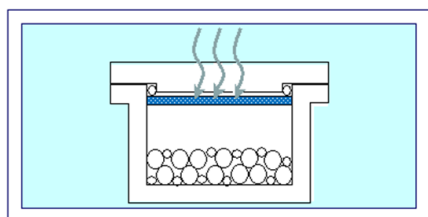
Excellent water repellency.

Excellent corrosion prevention.

Does not harm printed circuits or mounted parts.

Non-combustible.

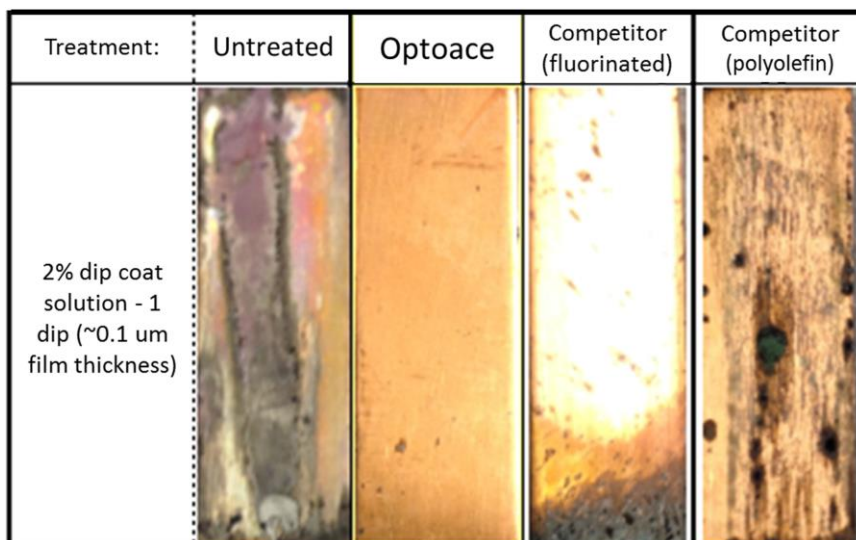
Significantly higher waterproofing performance than non-fluorochemical coatings.



Water vapor permeability is measured by using the cup method (JIS Z0208).

Corrosion Prevention

Protecting copper from 5% NaCl_(aq) at 65 °C for 7 days



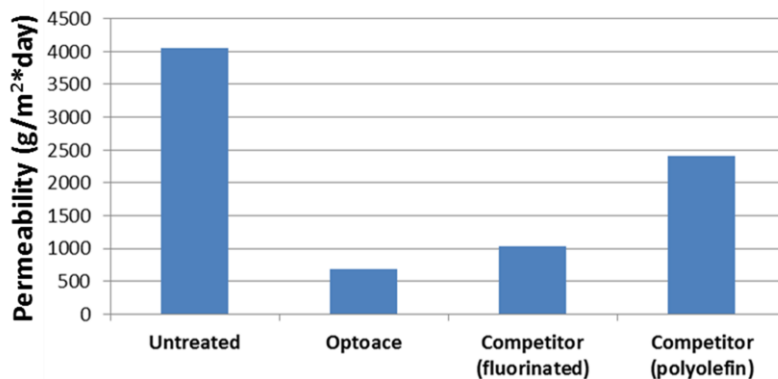
Tested according to JIS H 3100 (C1100P) and JIS Z 2371. Film thickness determined by measurement with a KEYENCE VK-9710 laser microscope.

Properties*	Optoace	Competitor (fluorinated)	Competitor (polyolefin)
Water Contact Angle (2 uL droplet)	115°	106°	97°
Water Sliding Angle (20 uL droplet)	25°	38°	60°
n-Hexadecane Contact Angle (2 uL droplet)	65°	65°	<10°

*Typical properties are not suitable for specification purposes.

Typical Performance Characteristics. Contact angle samples prepared by 1 dip in a 0.2% solution.

Water Vapor Permeability

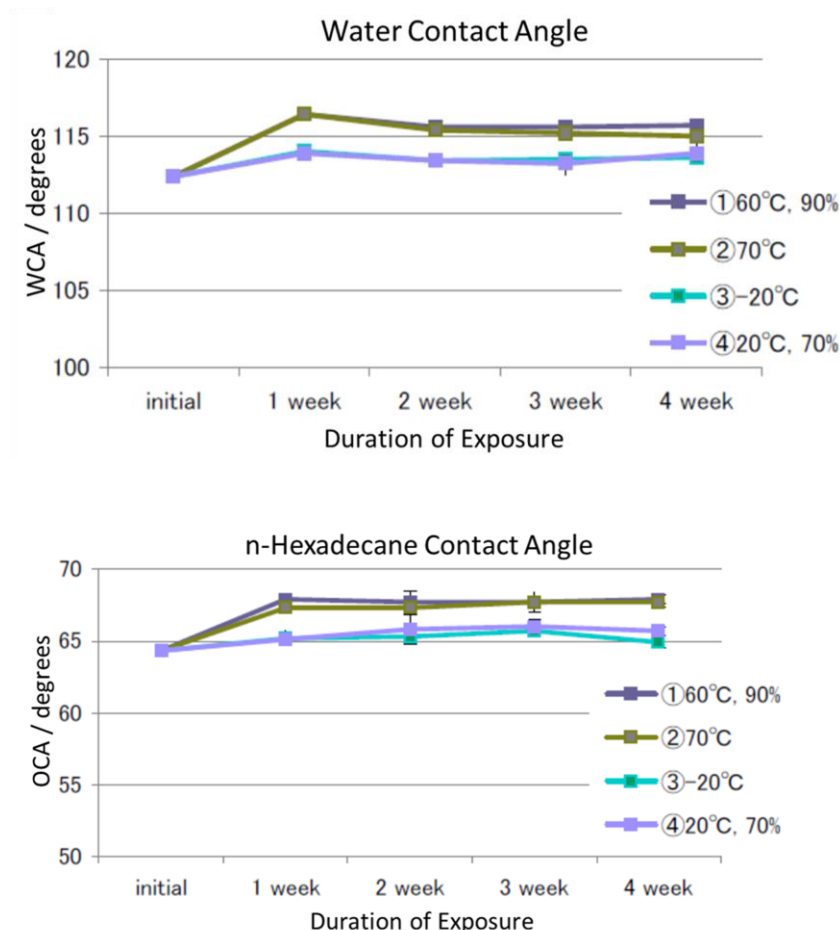


Water vapor permeability samples prepared by spin coating a 2% solution on to waterproof and moisture permeability sheets (JIS A6111·2004).

TDS-OPT-004 REV 0 5/9/16

Environmental Stability of Optoace:

Optoace remains stable under a wide variety of environmental conditions.



Controlling Optoace Dry Film Thickness:

Optoace can be diluted with Novec HFE 7200. The nominal film thickness can be manipulated by controlling the concentration of the active solids content in the dip coating bath. For instance, a dip bath with a 5% solids content will yield a dry film approximately 0.5 microns thick, whereas a 2% solids dip bath may yield a dry film approximately 0.1 microns thick.

Application Methods:

Wet Methods (Spray, Spin, Dip, Brush, etc.):

- Clean the substrate prior to treating the substrate with Optoace.
- Dip the object to be coated once into the dip bath.
- Remove from the dip bath and air dry.
- For localized applications to specific areas or regions of a sample, the Optoace solution may be precision sprayed or brushed on.
- When a transparent film is formed, the process is complete.
- When the process is complete, the container should be kept tightly closed to prevent evaporation.

Post-processing/Curing Methods:

- Room Temperature, air dry, ~1 min.

Handling and Storage Instructions:

- Read and understand the SDS.
- Work in a well-ventilated area.
- Wear the appropriate PPE, including gloves and safety glasses.
- Store Optoace in cool place.
- Avoid direct sunlight.
- Heating to high temperatures [continuously at 392 °F (200 °C) and above] can generate toxic decomposition products

Important:

This information is based on current knowledge and is intended as a general guide to product performance. It is not a warranty or product specification. Customers must determine that the product is suitable for their particular purpose before use.