

# KEMP HIGANIC (ONE-COMPONENT)

Organic Inorganic Hybrid Coating  
(Semi-Ceramic Type)

HIGANIC is an organic-inorganic hybrid resin designed for long-term protection to non-ferrous metals(SUS,hot-dip galvanizing) other than aluminum. HIGANIC is a semi-ceramic paint that complements the disadvantages of organic paints. it has corrosion resistance, weatherability, high hardness, flame retardancy and chemical resistance. It can be used for existing powder coating and fluorine coating production lines

## Uses

Aluminum, die casting anti-rust coating  
Heat exchanger (HVAC) anti-rust coating  
Stainless steel and EGI, GI Hot-dip Galvanizing anti-rust  
Magnesium anti-rust coating, Fastener finish coating  
Kitchen appliance coating

## Features

1. Finished condition : Matt, Gloss (Metallic Silver, Various colors)
2. Dry time : Dry to touch 10 ~ 15min | Complete dry 200°C \* 20min
3. S.V.R: Color 50% (Depends on color) ISO 3233  
Clear 36%
4. Theoretical coating ratio : 20~25 $\mu$ m Color 25 ~ 20 m<sup>2</sup>/kg  
Clear 18 ~ 14.4 m<sup>2</sup>/kg  
in the plane
5. Specific gravity : mixture 1 ~ 1.1 ASTM D1475
6. Coating Type : Spray, dip, dipspin
7. Viscosity Zahn #3 : 24~ 26sec
8. Heat-resistant temperature: 300 ~ 350°C
9. Storage period : 12 months from the date of manufacturing with sealed

## Coating Specification

### 1. Surface pretreatment

: Completely remove the fraction on the surface of basic material through the solvent washing or heat washing.  
If necessary : Remove the rust and scale on the surface using either the Shot blast ball 0.3~0.5mm or Sand blast grit #80~120  
:Immediately applicable to the chemical conversion coating (iron phosphate and zinc phosphate) material.

### 2. Coating Conditions

- Suitable material Temp for painting is 15 ~ 25°C
- Good ambient temperature is 0 ~ 35°C
- Relative humidity is less than 85%.
- Temperature on the surface of basic material shall be 3°C higher than the dew point.

### 3. Mixing

- : Perform machine agitation before use.
- : If you have a homomixer that is a pigment dispersion facility please ask kemp for dispersion method.
- \* If you filter the paint using the 150MESH Net, you may prevent the spray nozzle from being clogged by filtering the contaminated items and foreign substances

### 4. Repainting interval

- :After paint within ~ Max 3hours / Room Temperature
- ※ Information of this technical data is obtained based on the theory and experience of our technical institute and is subject to change for the improvement of quality without prior notice.
- ※ Check if the version of data to refer is the recently updated version before the use

### 5. Dilution (HIGANIC Exclusive Thinner)

Use the thinner 5% if the viscosity is increased during the use.

### 6. Coating Method

: Spray type

Nozzle diameter : 1.3 ~ 1.8mm

Injecting pressure : 2kgf/cm<sup>2</sup> ~ 4kgf/cm<sup>2</sup>

Injecting angle : 40 ~ 60°

- ※ Do not allow the pigment to sink by stirring at low speed during coating.
- ※ Be careful of Sagging, Running phenomenon.

: Dipdrain type

Dipping time : 20~30 $\times$ , Drain time : 1 ~ 2min (Depends on product size)

- ※ When using, stir at low speed to prevent bubbles and to disperse the pigment.
- ※ The area where higanic is a lot formed will cause defects. Please use a brush.

: Dipspin type

※ Stirring completed and After stabilization of the bubbles, please use

Dipping time 20sec, Drain time 30sec

Spin speed : 1coat 400~500RPM, 2coat 400~500RPM

Process : 1coat -> 200°C\*20min -> 2coat -> 200°C \* 20min

## Coating Process

1. Degreasing: Perfectly remove Oil (Solvent or Heat Cleaning)
2. Pretreatment (If necessary) : Shot blast or Sand blast  
(remove the rust and scale)
3. Coat : Use mechanical stirring to disperse and filter(#150) the HIGANIC paint.  
Coat carefully to avoid running, sagging
4. Drying: Hot air drying 200°C \* 20min
5. Dry film thickness : Recommended D.F.T 20~25 $\mu$ m

\*can be up to 40 $\mu$ m depending on the surface treatment and use environment.

## Other Caution

1. If you put the coated item in the solution of high temperature quickly after the coating of product, popping/bubble phenomenon may occur, so pay careful attention
2. Make sure to agitate the paint slowly so that the powder may not sink down (MSDS check)
3. Pay careful attention so that the coated area may not be contaminated by the dust during the coating process
4. Do the work under the smooth ventilation environment
5. Machine agitate the submerged powder before use.
6. Please seal the remaining HIGANIC after use.
7. Avoid the moisture and direct sunlight during the storage
8. For the other inquiries, contact us via an e-mail or over the phone.