

---

### Product Description

IPS Hybrid is a two component, ambient curing, epoxy-polysiloxane micaceous iron oxide pigmented anti-corrosion primer. Polysiloxane chemistry provides outstanding resistance to corrosion, chemical, mechanical & tough environmental conditions. Curing from ambient conditions to a hard & durable finish with good adhesion to sweep blasted or chemical treated galvanized surfaces. IPS Hybrid serves as ideal primer or intermediate coating for IPS 100 finish coat.

---

### Intended Applications

For use in high performance industrial & commercial constructions where high corrosion protection is required. Application over suitability prepared inorganic zinc (IOZ) primers, hot dip galvanised or DTM. Contact the Performance Polymers technical department for system recommendations as per ISO 12944.

---

### Technical Information

#### Product chemistry

A two component, ambient curing, polysiloxane hybrid

#### Colour

Metallic light and dark greys

#### Gloss

Matt

#### Theoretical spreading rate

14.0 m<sup>2</sup>/l at 50µm DFT

#### Typical film thickness

50 – 150µm DFT per coat

#### Mixing Ratio

Volume: Base – Hardener 80:20

Weight: Base – Hardener 88:12

#### Application methods

Airless, airspray and brush & roller

#### Volume solids

70%

#### VOC

350 g/L

#### Specific gravity

Approx. 1.50 g/ml

#### Flashpoint (ISO 1523)

Base 26°C

Hardener 30°C

#### Temperature resistance

120°C

### Surface Preparation

Substrates must be clean, dry and free from any contamination. All oil, dirt, grease, dust, foreign material and loose rust must be removed prior to coating.

#### Carbon steel substrates

Always apply IPS Hybrid over suitably prepared surfaces, the metal surface must be clean and free from contamination, ensuring application is within the maximum overcoating time stated on the technical data sheet of the specific primer coating.

#### Inorganic zinc primed substrates

Inorganic zinc (IOZ) primer overcoating; prior to application ensure primer surface is clean and free from contamination including zinc salts. The primer must be fully cured, an MEK rub test in accordance with the local standard is highly recommended.

Hot dip galvanized overcoating; prior to application remove all sharp edges, runs & drips by grinding or filing followed by abrasive sweep with a non-metallic abrasive media to create a surface profile ( $R_z$ )  $>25\mu\text{m}$ . For highly corrosive environments eg coastal, C5 or C4 the IPS Hybrid should be applied between 200 - 250 $\mu\text{m}$  DFT.

#### Aluminium and stainless steel substrates

Use an abrasive sweep with a non-metallic chloride free abrasive media to create a surface profile ( $R_z$ )  $>25\mu\text{m}$ .

---

### Substrate Temperature

Substrate temperature should remain between 10 to 50°C and remain 3°C above the dew point during application. Product application conditions range from 10 to 50°C & 30 - 85% relative humidity. Higher or lower temperatures & humidity's will result in faster or slower curing respectively.

---

### System Specifications

IPS Hybrid is to be used as an anti-corrosion primer or intermediate over ferrous and non-ferrous substrates and overcoated with IPS 100. Types of surface and substrates to coat:

1. **Inorganic zinc (IOZ) primers**
2. **Carbon, stainless and aluminium**
3. **Hot dip galvanized**

Typical 2 or 3 coat system for high performance industrial or commercial application:

- IPS Hybrid (primer): 75 - 250 DFT
- IPS Hybrid Intermediate coat (optional): 100 - 150 DFT (specification dependent)
- IPS 100 (topcoat): 75 - 150µm DFT

Application of IPS Hybrid by airless or airspray are the preferred application methods when applied over suitably primed substrates. Applications of 2 or 3 coat systems will depend on requirements needed from the protective coating system. Please consult Performance Polymers for further information on coating specifications.

### Application

#### Airless

Pump: 30:1 or larger

Tip size: 0.012 - 0.017 inch

Pressure: 1741 - 2321 psi / 120 - 160 bar

Thinning:

5 – 15% Thinner X21

#### Airspray (conventional)

Pressure: 30 - 40 psi / 2.1 - 2.8 bar

Nozzle orifice: 1.8 - 2.2mm

Thinning:

5 – 20% Thinner X21

#### Brush/roller

Thinning:

0 – 5% Thinner X21

Multiple application coats maybe necessary to ensure required DFT is reached.

#### Mixing

IPS Hybrid is a two component product, settling can occur during transport & storage. The material should always be mixed using a mechanical agitation ensuring all settled-out pigments are dispersed until a uniform consistency is reached.

#### Reactivity

IPS Hybrid is curing via chemical crosslinking reaction of A and B components.

#### Pot life

16 hours at 10°C

8 hours at 20°C

5 hours at 30°C

#### Reducer

Thinner X21

#### Clean up

Use Thinner X21 for cleaning after product use. Ensuring all material is flushed from application equipment.

#### Packaging

5 litres, 7.50 kg per can

20 Litres, 20 kg per can

### Coating & Curing Schedule

#### Spreading rate information

DFT	Theoretical spreading rate
50	14.0 m <sup>2</sup> /l
250	2.80 m <sup>2</sup> /l

#### Film thickness information

DFT/WFT	Minimum (µm)	Maximum (µm)
Dry film thickness	50	250
Wet film thickness	71	357

#### Drying & recoating information

Temperature (°C)	Touch dry	Overcoating time	Dry to handle
10	40 - 60 minutes	8 - 16 hours	36 - 42 hours
23	15 - 30 minutes	5 - 6 hours	16 - 24 hours
38	5 - 10 minutes	1 - 2 hours	12 - 16 hours

Notes: drying times can vary upon different environmental conditions. Coating should be applied within the information supplied to ensure drying & overcoating times are not affected. Product is fully cured from ambient conditions & does **not** require heating to obtain mechanical & corrosion protection.

### Additional Information

#### Safety precautions

This product is for use only by professional applicators in accordance with information in this Technical Data Sheet (TDS) and the applicable Material Safety Data Sheet (MSDS). Refer to the product MSDS before using this material. All usage of this product must be kept in compliance with local, health, safety & environmental conditions & regulations.

#### Storage & shelf life

Material should be stored in a dry, shaded environment away from heat & ignition sources. Shelf life is minimum 12 months at 23°C.

#### Important

The information of the product displayed herein is to the best knowledge of Performance Polymers. All testing has been under strict laboratory conditions which Performance Polymers believes to be reliable; therefore, onsite performance can vary with application in different conditions. Additionally, Performance Polymers has no control of external factors e.g. substrate quality of preparation or any other factors which can hinder affect the performance of this product. The information in this TDS is not to be extensive; any use without confirmation from Performance Polymers is doing so at their own risk. Any deviation of performance on site isn't liable to Performance Polymers. The performance of this product carries no warranty. The documentation of this product should be thoroughly read before use.