

# Hempel's Silicone Zinc

## Product characteristics

### Description

Hempel's Silicone Zinc 16900 is a heat resistant zinc pigmented silicone primer. It cures to form a hard film at ambient temperatures and resists temperatures up to 400°C/752°F. Complies with EU Directive 2004/42/EC, The Paints Directive on the limitation of volatile organic compounds: subcategory i.

### Recommended use

As a primer for long-time corrosion protection of steel exposed to high temperatures (from 100°C/210°F to 400°C/750°F).

### Service temperature:

- Maximum, dry exposure only: 400°C [752°F].

## Product safety

**Flash point** 25°C [77°F]

### VOC content

Legislation	Value	15% thinning, by volume	Limit value, phase II (2010) <sup>a</sup>
EU	405 g/L [3.38 lb/US gal]	472 g/L [3.94 lb/US gal]	500 g/L [4.17 lb/US gal]
US (coatings)	403 g/L [3.36 lb/US gal]	-	-
US (regulatory)	404 g/L [3.37 lb/US gal]	-	-
China	405 g/L [3.38 lb/US gal]	-	-

According to specific legislation, see details in the Explanatory Notes available at Hempel website, [hempel.com](http://hempel.com) or at your local Hempel website. <sup>a</sup>EU Directive 2004/42/CE.

### Handling

Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

For professional use only.

## Product data

### Product code

16900

### Standard shade / code

Grey 19840

### Gloss

Flat

### Volume solids

53 ± 2%

### Specific gravity

2.5 kg/L [21 lb/US gal]

### Reference dry film thickness

40 micron [1.6 mils]

## Surface preparation

### Cleanliness

- Remove oil, grease and other contaminants by suitable detergent cleaning.
- Remove salts, detergents and other contaminants by high pressure fresh water cleaning.

### New build:

- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.

### Maintenance and Repair

- According to Hempel's Specification.

### Roughness

- Surface profile Medium (G) (ISO 8503-2).

Consult Hempel's separate Surface Preparation Guidelines for more details.

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## Application

### Mixing ratio

This product contains heavy particles. Stir well before use.

### Thinner

Hempel's Thinner 08080

### Cleaner

Hempel's Thinner 08080

### Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 125 bar [1800 psi] Nozzle orifice: 0.017"
Air spray	15%	Not Applicable.
Brush	5%	Not Applicable.

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

### Film thickness

Specification range	Low	High	Recommended
Dry film thickness	30 micron [1.2 mils]	40 micron [1.6 mils]	40 micron [1.6 mils]
Wet film thickness	60 micron [2 mils]	75 micron [3 mils]	75 micron [3 mils]
Theoretical spreading rate	18 m <sup>2</sup> /L [730 sq ft/US gal]	13 m <sup>2</sup> /L [530 sq ft/US gal]	13 m <sup>2</sup> /L [530 sq ft/US gal]

Product may be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate, drying and curing time and overcoating interval. For best performance, avoid excessive film thickness.

### Application conditions

- To avoid condensation, apply on a clean and dry surface with a temperature that is at least 3°C [5°F] above the dew point.

### Relative Humidity:

- Relative humidity must be in the range 30-80% during curing.

## Drying and overcoating

### Product compatibility

- Previous coat: None or according to Hempel's specification.
- Subsequent coat: According to Hempel's Specification. Recommended products are: Hempel's Silicone Topcoat 56900, Hempel's Silicone Aluminium 56910, Hempel's Silicone Acrylic 56940

### Drying time

Surface temperature	20°C [68°F]	
Touch dry	hours	2¼
Hard dry	hours	3¼

Determined for dry film thickness 40 micron [1.6 mils] at standard conditions, see Hempel's Explanatory Notes for details.

### Drying conditions

- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.

### Overcoating details

- If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.
- The surface must be clean before overcoating.

### Other remarks

- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.

## Storage

### Shelf life

Ambient temperature	25°C [77°F]	35°C [95°F]
Product	6 months	6 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Always check the best before date or expiry date on the label.

# Hempel's Silicone Zinc

## Additional documents

Additional information is available at the Hempel website [hempel.com](http://hempel.com) or at your local Hempel website:

- Explanatory Notes explaining the fields in this Product Data Sheet.
- Surface Preparation Guidelines.
- Application Guidelines for different application methods.
- General Application Guidelines

This Product Data Sheet ("PDS") relates to the supplied product ("Product") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at [www.hempel.com](http://www.hempel.com) (the "Additional documents"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at <a href="http://www.hempel.com">www.hempel.com</a> and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at <a href="http://www.hempel.com">www.hempel.com</a>
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at <a href="http://www.hempel.com">www.hempel.com</a>

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from [www.hempel.com](http://www.hempel.com).

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.