

Hempel's Zinc Primer 16490

Product characteristics

Description

Hempel's Zinc Primer 16490 is a one-component, high molecular weight, quick drying, phenoxy coating with a high content of zinc.

Recommended use

As a protective primer on steel in severely corrosive environment. For repair of Galvosil and other zinc rich coatings. For repair of galvanized steel. In compliance with SSPC-Paint 20, type 2, level 3.

Service temperature:

- Maximum, dry exposure only: 120°C [248°F].

Product safety

Flash point 7°C [45°F]

VOC content

Legislation	Value
EU	567 g/L [4.73 lb/US gal]
US (coatings)	567 g/L [4.73 lb/US gal]
US (regulatory)	567 g/L [4.73 lb/US gal]
China	567 g/L [4.73 lb/US gal]

According to specific legislation, see details in the Explanatory Notes available at Hempel website, hempel.com or at your local Hempel website.

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

16490

Standard shade / code

Grey 19840

Gloss

Flat

Volume solids

33 ± 2%

Specific gravity

1.7 kg/L [14 lb/US gal]

Reference dry film thickness

35 micron [1.4 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

- Minor areas may be hand or power tool cleaned instead of abrasive blasting.
- Remove dust, blast media and loose materials.

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

Products containing floating or settling particles/pigments need to be continuously stirred during application. This is especially important in case of heavy thinning.

Thinner

Hempel's Thinner 08450

Cleaner

Hempel's Thinner 08450
Hempel's Tool Cleaner 99610

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 200 bar [2900 psi] Nozzle orifice: 0.019-0.021"
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	25 micron [1.0 mils]	35 micron [1.4 mils]	35 micron [1.4 mils]
Wet film thickness	75 micron [3 mils]	110 micron [4 mils]	110 micron [4 mils]
Theoretical spreading rate	13 m ² /L [530 sq ft/US gal]	10 m ² /L [390 sq ft/US gal]	10 m ² /L [390 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.

Drying and overcoating

Product compatibility

- Previous coat: None.
- Subsequent coat: According to Hempel's Specification.
Recommended products are: Hempadur, Hempatex

Drying time

Surface temperature		20°C [68°F]
Touch dry	min	15
Hard dry	min	30

Determined for dry film thickness 35 micron [1.4 mils] at standard conditions, see Hempel's Explanatory Notes for details.

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name	Atmospheric medium				
	0°C [32°F]	20°C [68°F]	30°C [86°F]	40°C [104°F]	
Hempel's Zinc Primer 16490	Min Max	90 min Ext	30 min Ext	25 min Ext	15 min Ext

Overcoating times are indicative for products of the same generic chemistry. Consult Hempel's specification for more information.

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.
- Remove zinc salts or other contamination before overcoating.
- The surface must be dry and clean prior to application.

Other remarks

- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.
- Epoxy coats have an inherent tendency of chalking in outdoor exposure. This does not affect the performance of the coating.

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Storage

Shelf life

Ambient temperature	25°C [77°F]
Product	12 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. For advice, please consult Hempel.

Storage conditions

- Product must be stored according to local legislation, at maximum 40°C [104°F], without direct sunlight and protected from rain and snow.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	26.9 g CO₂e/m²	0.14 lb CO₂e/ft²

The carbon footprint is for 1 square meter / square foot of surface area with a dry film thickness of 1 micron / mil.

The scope includes raw materials, in-bound transport to the Hempel factory, Hempel manufacturing processes, and any Volatile Organic Compounds emitted during and after the application of the product.

It is calculated based on the standard shade defined in this PDS. Values may vary with shade.

Additional documents

Additional information is available at the Hempel website <https://www.hempel.com/service-and-support/technical-guidelines> or at your local Hempel website:

- Explanatory Notes for Product Data Sheet.
- 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 (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 www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

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.

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.