

Hempel's Shopprimer ZS 15890

Product characteristics

Description

Hempel's Shopprimer ZS 15890 is a two-component, solvent-borne zinc ethyl silicate shopprimer, designed for automatic spray application. Especially suited, where welding and gas-cutting properties are of importance. The product complies with IMO MSC.215(82) as shopprimer for ballast tank coating systems and IMO MSC.288(87) as shopprimer for cargo oil tank coating systems.

Recommended use

For short to medium-term protection of abrasive blast cleaned steel plates and other structural steel during the storage, fabrication, and construction periods.

Service temperature:

- Without topcoat: maximum, dry, atmospheric exposure: 400°C [752°F].

Certificates / Approvals

- Approved as weldable pre-fabrication primer. Contact Hempel for details.

Features

- Excellent resistance to weathering
- Excellent resistance to oil and organic solvents
- Excellent heat resistance

Product safety

Flash point 22°C [72°F]

VOC content mixed product

Legislation	Value
EU	620 g/L [5.17 lb/US gal]
US (coatings)	620 g/L [5.17 lb/US gal]
US (regulatory)	620 g/L [5.17 lb/US gal]
China	620 g/L [5.17 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. VOC values may vary with shade, please consult the Safety Data Sheet, section 9.

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

15890

Product components

Base 15899
Curing Agent 99751

Standard shade / code

Grey 19840

Gloss

Flat

Volume solids

28 ± 2%

Specific gravity

1.3 kg/L [11 lb/US gal]

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Reference dry film thickness

15 micron [0.6 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.
- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.

Roughness

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

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

Application

Mixing ratio

Base 15899 : Curing Agent 99751
(2 : 3 by volume)

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 08700
Hempel's Thinner 08570

Cleaner

Hempel's Thinner 08700
Hempel's Thinner 08570

Pot life

Product temperature	20°C [68°F]
Pot life	24 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	30%	Nozzle pressure: 80 bar [1200 psi] Nozzle orifice: 0.019-0.023"
Air spray	30%	Not Applicable.
Brush	15%	Not Applicable.

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	10 micron [0.4 mils]	25 micron [1.0 mils]	15 micron [0.6 mils]
Wet film thickness	35 micron [1.4 mils]	88 micron [3.5 mils]	53 micron [2.1 mils]
Theoretical spreading rate	28 m²/L [1141 sq ft/US gal]	11 m²/L [448 sq ft/US gal]	19 m²/L [774 sq ft/US gal]

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.
- Surface temperature must be above 0°C [32°F] during application and curing.
- Surface temperature must be below 55°C [131°F] during application and curing.

Relative Humidity:

- Relative humidity must be above 50% during curing.

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Drying and overcoating

Product compatibility

- Previous coat: None.
- Subsequent coat: According to Hempel's Specification.

Drying time

Surface temperature		20°C [68°F]
Dry to handle	min	5

Determined for dry film thickness 15 micron [0.6 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

- Inorganic zinc silicates must be fully cured before overcoating.
- Remove zinc salts or other contamination before overcoating.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	12 months
Curing Agent	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)	21.6 g CO ₂ e/m ²	0.112 lb CO ₂ e/ft ²

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.

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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.