Hempel's Galvosil 15700

Product characteristics

Description
Hempel's Galvosil 15700 is a solvent-borne, self-curing, inorganic zinc rich silicate primer with outstanding resistance against weathering and abrasion. Offers excellent galvanic protection of local mechanical damage. Has excellent chemical resistance within the pH range 6-9.

The product is in compliance with the compositional requirements of SSPC Paint 20, Type I, Level 1 and ISO 12944 Part 5, 2018. In full compliance with ISO 3549 and ASTM D520 type II.

Recommended use
Hempel's Galvosil 15700 is recommended as a general purpose, heavy-duty, rust-preventing primer for newbuild and maintenance. Suitable for structural steel and piping. Recommended for a wide range of atmospheric corrosivity environments up to extreme (offshore).
Can be used as a single, complete coating for long-term protection of steel exposed to moderately to severely corrosive environment and abrasion. Also suitable for tank linings in accordance with Hempel's Chemical Protection guide.

Service temperature:
- Without topcoat: maximum, dry, atmospheric exposure: 450°C [842°F].
- With a suitable topcoat: maximum, dry, atmospheric exposure: 540°C [1004°F], peak: 600°C [1112°F].
- Wet service temperatures: Please consult the Chemical protection guide at hempel.com.
- Minimum, recommended by Hempel for dry exposure: -40°C [-40°F].

Certificates / Approvals
- Meets requirements to ISO 12944 when used as part of a predefined paint system. Part 6 C5, Part 9 CX.
- Meets requirements to NORSOK M-501 when used as part of a predefined paint system. Edition 6, System 1. Edition 7, System 1A.
- Complies with US FDA and EU food regulations for contact with liquid and dry foodstuff. Consult Hempel for details.
- Compliant with requirements for use in Slip-B construction joints. Contact Hempel for relevant test report.

Product safety

Flash point 18°C [64°F]

VOC content mixed product

Legislation	Value
EU	474 g/L [3.96 lb/US gal]
US (coatings)	474 g/L [3.96 lb/US gal]
US (regulatory)	474 g/L [3.96 lb/US gal]
China	474 g/L [3.96 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. According to EPA Method 24.

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
15700

Product components
Base 15709
Zinc 97170

Standard shade / code
Grey 19840

Gloss
Flat

Volume solids
64 ± 2%

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Specific gravity
2.5 kg/L [21 lb/US gal]

Reference dry film thickness
50 micron [2.0 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) / NACE No.2.
- 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.

Application

Mixing ratio
Base 15709 : Zinc 97170
(3.4 : 6.6 by weight)

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

Thinner
Hempel's Thinner 08700
Hempel's Accelerator & Thinner 0870M

Cleaner
Hempel's Thinner 08700

Pot life

Product temperature	20°C [68°F]	10°C [50°F]	25°C [77°F]
Pot life	4 hours	8 hours	3 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	10%	Nozzle pressure: 100 bar [1500 psi] Nozzle orifice: 0.019-0.023"
Air spray	10%	-
Brush	10%	-

To minimise dry spray at high temperatures, extra thinning may be necessary. 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	50 micron [2.0 mils]	100 micron [4.0 mils]	50 micron [2.0 mils]
Wet film thickness	78 micron [3.1 mils]	157 micron [6.3 mils]	78 micron [3.1 mils]
Theoretical spreading rate	13 m²/L [530 sq ft/US gal]	6.4 m²/L [261 sq ft/US gal]	13 m²/L [530 sq ft/US gal]

Overthickness must be closely controlled and never locally exceed 125 micron [5.0 mils] DFT. On irregular surfaces it is recommended to employ special care in avoiding over application.

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 above 50% during curing.

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Application remarks
- Consult Hempel's Application Guidelines and Instructions for more details.

Drying and overcoating

Product compatibility
- Previous coat: None.
- Subsequent coat: None or according to Hempel's specification.

Drying time

Surface temperature		10°C [50°F]	20°C [68°F]	30°C [86°F]
Touch dry	hours	1¼	½	¼
Hard dry	min	120	60	30
Fully cured	hours	36	24	8

Determined for dry film thickness 50 micron [2.0 mils] at standard conditions, see Hempel's Explanatory Notes for details. The drying times of moisture curing products will depend on the relative humidity, therefore drying times in the field could vary.

Overcoating

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.
- According to Hempel's Specification.

Overcoating details
- Remove zinc salts or other contamination before overcoating.
- Flash-coat technique is recommended when overcoating Galvosil qualities.
- Inorganic zinc silicates must be fully cured before overcoating.
- The surface must be dry and clean prior to application.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	6 months
Zinc	36 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. The shelf life printed on product labels is based on regional climate conditions. For advice, please consult Hempel.

Storage conditions
- The product must be stored in accordance with Safety Data Sheet, label and local regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	12.4 g CO_2e/m^2	0.065 lb CO_2e/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 Knowledge Center: https://www.hempel.com/knowledge-center. The documents below can be found in the Technical Guidelines section: https://www.hempel.com/knowledge-center/technical-guidelines or at the Hempel webiste.

- Explanatory Notes for Product Data Sheet.
- Application methods.
- Surface Preparation.
- Application Instruction for this product.
- Inspection & quality control.
- Tank linings.
- Zinc silicates.

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.