

15680: LIQUID 15689: HEMPEL'S ZINC METAL PIGMENT 97170 / 9714U (US)

Description:	HEMPEL'S GALVOSIL 15680 is a two-component, solvent-borne, self-curing, inorganic zinc silicate with outstanding resistance against weathering and abrasion. It has excellent chemical resistance within the pH range 6-9. For service temperature range, see below. Applicable by airless spray. Offers cathodic protection of local mechanical damage. Meets all current V.O.C. regulations. Hempel's Zinc metal pigment 97170/9714U is in full compliance with ISO 3549 and ASTM D520 type II.
Recommended use:	As a general purpose, heavy-duty, rust-preventing primer. As a single, complete coating for long-term protection of steel exposed to moderately to severely corrosive environment and to abrasion. In compliance with SSPC-Paint 20, type 1, level 1, zinc dust meeting ASTM D520, type II.
Service temperature:	Resistant to permanent (non-cyclic) dry temperatures as well as occasionally dry peak temperatures up to maximum: 500°C/932°F. It is of advantage to apply a topcoat of HEMPEL'S SILICONE ALUMINIUM 56913 in case of service temperatures above: 400°C/752°F.
Certificates/Approvals:	156801984Z - Meets the requirements laid down in ASTM A-490 Class "B" for Slip-Co-efficient and Creep Resistance.
Availability:	Not included in Group Assortment. Availability subject to special agreement.
PHYSICAL CONSTANTS:	
Shade nos/Colours:	1984Z / Metal grey
Finish:	Flat
Volume solids, %:	90 ± 1
Theoretical spreading rate:	18 m ² /l [721.8 sq.ft./US gallon] - 50 micron/2 mils
Flash point:	16 °C [60.8 °F]
Specific gravity:	3.3 kg/litre [27.6 lbs/US gallon]
Dry to touch:	0.5 approx. hour(s) 20°C/68°F (75% RH)
Fully cured:	16 approx. hour(s) 20°C/68°F (75% RH) see REMARKS overleaf
VOC content:	320 g/l [2.7 lbs/US gallon]
Shelf life:	6 months for the LIQUID and 3 years for HEMPEL'S ZINC METAL PIGMENT (stored in closed container) (25°C/77°F) from time of production. Shelf life is dependent on storage temperature. Shelf life is reduced at storage temperatures above 25°C/77°F. Do not store above 40°C/104°F. Shelf life is exceeded if the liquid is gelled or if the mixed product forms gels before application. <i>The physical constants stated are nominal data according to the HEMPEL Group's approved formulas.</i>
APPLICATION DETAILS:	
Version, mixed product:	15680
Mixing ratio:	LIQUID 15689: HEMPEL'S ZINC METAL PIGMENT 97170 / 9714U (US) 1 : 3 by weight. (by volume - see REMARKS overleaf)
Application method:	Airless spray / Air spray / Brush (touch up)
Thinner (max.vol.):	08700 (15%) / 08700 (25%) / 08700 (5%)
Pot life:	4 hour(s) 20°C/68°F
Nozzle orifice:	0.019 - 0.023 "
Nozzle pressure:	180 bar [2610 psi] (Airless spray data are indicative and subject to adjustment)
Cleaning of tools:	HEMPEL'S THINNER 08700
Indicated film thickness, dry:	50 micron [2 mils] (Consult the separate APPLICATION INSTRUCTIONS)
Indicated film thickness, wet:	60 micron [2.4 mils]
Overcoat interval, min:	According to separate APPLICATION INSTRUCTIONS
Overcoat interval, max:	According to separate APPLICATION INSTRUCTIONS
Safety:	Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult HEMPEL Safety Data Sheets and follow all local or national safety regulations.

SURFACE PREPARATION:	Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Abrasive blasting with sharp abrasive to minimum Sa 2½ (ISO 8501-1:2007) with a surface profile equivalent to Rugotest No. 3, BN10, Keane-Tator Comparator, min. 3.0 G/S, or ISO Comparator rough Medium (G). In case of new steel to be exposed to no more than medium aggressive (industrial) environment and without any extraordinary demands to lifetime, a surface preparation degree of SSPC-SP6 may suffice. See separate APPLICATION INSTRUCTIONS
APPLICATION CONDITIONS:	The surface must be completely clean and dry at the time of application and its temperature must be above the dew point to avoid condensation.)At temperatures ranging from 0°C/32°F to 40°C/105°F, curing needs minimum 50% relative humidity. Curing is retarded at lower temperature and lower humidity. See separate APPLICATION INSTRUCTIONS
SUBSEQUENT COAT:	None, or as per specification. Recommended systems are: HEMPADUR
REMARKS:	Note: If used as anticorrosive protection under insulation of high temperature equipment it is very important that NO moisture can penetrate during slow-down periods. This is to avoid the risk of "wet corrosion" when the temperature rises.
Induction time:	For application at high temperatures, a special thinner is available.
Stirring:	When mixing part of the content in a can the mixing ratio on volume should be made as follows: 6.2 parts of the BASE and then add HEMPEL'S ZINC METAL PIGMENT up to a total of 10.00 parts by volume.
Application(s):	Wet service temperature , non-saline water: max 60°C/140°F. Wet service temperature , other liquids: Consult the corresponding CARGO PROTECTION GUIDE Hot sea water washing and (low pressure) steam cleaning should never be executed on tank coatings which have not been in service for at least one month. Contact HEMPEL about temperature permissible. Irregular surfaces: Special care should be taken in relation to irregular surfaces (welding seams, undercuts, corners etc.) as application with an excessive film thickness may result in cracking.
Overcoating intervals:	Overcoating intervals are strongly dependent on both temperature and humidity. Deviations from the standard conditions may shorten or prolong the overcoating intervals. Full curing will be obtained after: 0°C/32°F and minimum 75% RH: 3 days 10°C/50°F and minimum 75% RH: 36 hour(s) 20°C/68°F and minimum 75% RH: 16 hour(s) (A certain degree of curing does take place at temperatures below 0°C/32°F, but at an extremely low speed) (Consult the separate APPLICATION INSTRUCTIONS) The state of curing should be checked before overcoating, a resistance rating of minimum 4 by ASTM D4752 is required. MEK (Methyl Ethyl Ketone) may be substituted by Hempel Thinner 08700 for the test.
Note:	HEMPEL'S GALVOSIL 15680 For professional use only.
ISSUED BY:	HEMPEL A/S

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This Product Data Sheet supersedes those previously issued.

For explanations, definitions and scope, see "Explanatory Notes" available on www.hempel.com. Data, specifications, directions and recommendations given in this data sheet represent only test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use of the Products herein must be determined exclusively by the Buyer and/or User.

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