



HEMPEL'S GALVOSIL 15700

15700: LIQUID 15709: HEMPEL'S ZINC METAL PIGMENT 97170/97140

Description:

HEMPEL'S GALVOSIL 15700 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.

Hempel's Zinc metal pigment 97170 is in full compliance with ISO 3549 and ASTM D520 type I, Hempel's Zinc metal pigment 97140 is additionally in compliance with 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.
As a tank lining in accordance with the CARGO PROTECTION GUIDE.
In compliance with SSPC-Paint 20, type 1, level 1 and ISO 12944-5.

Service temperature:

Resistant to permanent (non-cyclic) dry temperatures as well as occasionally dry peak temperatures up to maximum: 500°C/932°F.
Resistant to cyclic dry temperatures up to 400°C/752°F.
Resistance to higher temperatures under humid conditions, see REMARKS overleaf.

Certificates/Approvals:

Meets the requirements laid down in ASTM A-490 Class "B" for Slip-Co-efficient and Creep Resistance. Complies with the requirements for low moisture fats and oils according to FDA.

Availability:

Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Shade nos/Colours: 19840 / Metal grey
Finish: Flat
Volume solids, %: 64 ± 1
Theoretical spreading rate: 12.8 m²/l [513.3 sq.ft./US gallon] - 50 micron/2 mils
Flash point: 14 °C [57.2 °F]
Specific gravity: 2.7 kg/litre [22.2 lbs/US gallon]
Dry to touch: 0.5 approx. hour(s) 20°C/68°F (60-75% RH)
Fully cured: 16 hour(s) 20°C/68°F and minimum 75% RH
(see REMARKS overleaf)
VOC content: 434 g/l [3.6 lbs/US gallon]
Shelf life: 6 months at 25°C/77°F for the LIQUID and 3 years for HEMPEL'S ZINC METAL PIGMENT (stored in closed container) 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 the following temperature: 40°C/105°F.
Shelf life is exceeded if the liquid is gelled or if the mixed product forms gels before application.

The physical constants stated are nominal data according to the HEMPEL Group's approved formulas.

APPLICATION DETAILS:

Version, mixed product:

15700

Mixing ratio:

LIQUID 15709: HEMPEL'S ZINC METAL PIGMENT
97170/97140
3.1 : 6.9 by weight (by volume - see REMARKS overleaf)

Application method:

Airless spray / Air spray / Brush (touch up)

Thinner (max.vol.):

08700 (30%) / 08700 (50%) / 08700 (10%)

Pot life:

4 hour(s) 20°C/68°F

Nozzle orifice:

0.019 - 0.023 "

Nozzle pressure:

100 bar [1450 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] see REMARKS overleaf

Indicated film thickness, wet:

75 micron [3 mils]

Recoat interval, min:

According to separate APPLICATION
INSTRUCTIONS

Recoat 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.



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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 and corresponding PAINTING SPECIFICATION for cargo tanks.

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:

As a tank coating: None, i.e. no other paints are acceptable in combination with the product. Otherwise according to specification.

REMARKS:

Weathering/service temperatures:

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 to avoid risk of "wet corrosion" when the temperature rises.

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.

Induction time:

For application at high temperatures, a special thinner is available.

Application(s)

When mixing part of the content in a can the mixing ratio on volume should be made as follows:
Measure 7.4 parts of liquid 15709, then add Hempel's zinc metal pigment 97170 up to a total of 10,0 parts by volume

Film thicknesses/thinning:

If topcoated with a heavy-duty system it is recommended to apply: 50-80 micron/2.0-3.2 mils dry film thickness (75-125 micron/3-5 mils wet.) (Consult the separate APPLICATION INSTRUCTIONS)
For long-term protection without topcoat it is recommended to have a film thickness of: 75 micron/3 mils dry film thickness (100-125 micron/4-5 mils wet.)
In tanks, it is recommended to apply: 100 micron/4 mils dry film thickness (150 micron/6 mils wet.) May be applied in a dry film thickness up to: 125 micron/5 mils (200 micron/8 mils wet.)
High temperature service: Dry film thicknesses should not exceed: 40-50 micron/1.6-2 mils to avoid cracking, especially in cases where service conditions include sudden temperature changes.
(The dry film thickness range does not take into account the correction factors for rough surfaces as listed in ISO 19840).

Curing before filling of tanks:

Before cargo tanks are taken into use, the coating must be completely through-cured. It is recommended to carry out low pressure hosing of the tanks with (fresh) water 2-3 times at ambient temperatures. Let the tanks remain wet between the washings. (Consult the separate APPLICATION INSTRUCTIONS)

Recoating intervals:

Recoating intervals are strongly dependent on both temperature and humidity. Deviations from the standard conditions may shorten or prolong the recoating 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 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 15700 For professional use only.

ISSUED BY:

HEMPEL A/S

1570019840

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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