



HEMPEL'S SHOPPRIMER ZS 15890

15890: BASE 15899: HEMPEL'S LIQUID 99751

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 (MIG/MAG) and gas-cutting properties are of importance.
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.
Certificates/Approvals:	Approved as a welding primer by Lloyd's Register of Shipping. Approved as a welding primer by Det Norske Veritas Approved as a welding primer by Germanischer Lloyd. Approved as a welding primer by Bureau Veritas. Complying with IMO MSC.215(82) as shop primer for ballast tank coating systems. Certified by major classification societies. Contact your local Hempel representative for more info and specific certificates.
Availability:	Part of Group Assortment. Local availability subject to confirmation.
PHYSICAL CONSTANTS:	
Shade nos/Colours:	19890* / Reddish grey
Finish:	Flat
Volume solids, %:	28 ± 1
Theoretical spreading rate:	18.7 m ² /l [749.9 sq.ft./US gallon] to 15 micron/0.6 mils
Flash point:	22 °C [71.6 °F]
Specific gravity:	1.3 kg/litre [11.1 lbs/US gallon]
Dry to handle:	4 to 5 minute(s) 20°C/68°F
Fully cured:	72 approx. hour(s) 20°C/68°F (75% RH)
VOC content:	620 g/l [5.2 lbs/US gallon] (According to EPA Fed Ref Method 24)
Shelf life:	1 year (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 or below 5°C/40°F. Shelf life is exceeded if the liquid is gelled or if the mixed product forms gels before application. <i>*other shades according to assortment list.</i>
	<i>The physical constants stated are nominal data according to the HEMPEL Group's approved formulas.</i>
APPLICATION DETAILS:	
Version, mixed product:	15890
Mixing ratio:	BASE 15899: HEMPEL'S LIQUID 99751 2 : 3 by volume
Application method:	Airless spray / Air spray / Brush (touch up)
Thinner (max.vol.):	08570 or 08700 (30%) / 08700 (30%) / 08570 or 08700 (15%) According to separate APPLICATION INSTRUCTIONS
Pot life:	24 hour(s) 20°C/68°F (Closed container, constant stirring) see REMARKS overleaf
Nozzle orifice:	0.019 to 0.023 "
Nozzle pressure:	80 bar [1160 psi] (Airless spray data are indicative and subject to adjustment)
Cleaning of tools:	HEMPEL'S THINNER 08700 or 08570.
Indicated film thickness, dry:	15 micron [0.6 mils] see REMARKS overleaf
Indicated film thickness, wet:	Not relevant
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.



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SURFACE PREPARATION:	Remove oil and grease with suitable detergent. Abrasive blasting to minimum Sa 2½ (ISO 8501-1: 2007) with a surface profile equivalent to Rugotest No. 3, min. N9a, Keane-Tator Comparator, 2 mils segments or ISO Comparator Medium (G,S). For special purposes grit blasting is necessary.
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. Minimum steel temperature: 0°C/32°F. Maximum steel temperature approximately: 55°C/131°F. Minimum temperature for curing is: 0°C/32°F. At relative humidity below 50%, curing is retarded. See separate APPLICATION INSTRUCTIONS
SUBSEQUENT COAT:	According to specification.
REMARKS:	Local adjustments: Local conditions (e.g. application equipment, climatic application conditions, production speed/ efficiency) may require local adjustments in solvent composition, degree of pre-thinning and degree of pre-hydrolysis for the shopprimer as supplied. As such adjustments may influence flash point and volume solids %, Hempel's quality control system requires separate product numbers, Product Data Sheets and Material Safety Data Sheets to be issued, even though the adjustments have no influence on the composition and properties and performance of the final and cured shopprimer film. The following product numbers represent such adjustments: HEMPEL'S SHOPPRIMER ZS 15893 HEMPEL'S SHOPPRIMER ZS 1589B HEMPEL'S SHOPPRIMER ZS 1589S HEMPEL'S SHOPPRIMER ZS 1589K
Application(s):	For steel to be used for ballast tanks, IMO Resolution MSC.215(82) requires that the contamination with water soluble salts measured according to ISO 8502-9 must not exceed a conductivity equivalent to 50 mg/m ² sodium chloride. The dust quantity rating assessed according to ISO 8502-3 must not exceed rating "1" for dust size classes "3", "4" or "5". If shelf life is exceeded, it is usually possible to use the zinc paste (BASE), if any settling can be remixed. The liquid may be used provided it shows no signs of turbidity, but pot life will be very much shortened, see application(s). In any case, possible surpassing of storage time will be of 1-2 months maximum (20°C/68°F) for the liquid. The pot life may be gradually reduced to 8 hours (20°C/68°F) as the liquid approaches the end of its shelf life, assuming that it is stored under favourable conditions.
Film thicknesses/thinning:	For this shopprimer, the indicated dry film thickness means the thickness measured on a smooth test panel and when the shopprimer is being applied to abrasive blasted substrate with a roughness of approximately: Rz 60 micron. A higher roughness may require upwards adjustment of the dry film thickness and correspondingly reduce the theoretical spreading rate. Actual specified dry film thickness may depend on welding requirements, exposure conditions and required protection time. Dry film thickness range with suitable thinning is: 10-25 micron/ 0.4-1 mils. The product should be applied in a uniform film thickness. Avoid dry spray and exaggerated film thickness.
Overcoating intervals:	No maximum overcoat interval for adhesion, but dictated by gradual breakdown and damage during exposure and fabrication. Regarding treatment before overcoating, please consult APPLICATION INSTRUCTIONS.
Note:	HEMPEL'S SHOPPRIMER ZS 15890 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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