



Product Data

HEMPEL'S SHOPPRIMER ZS 15890

HEMPEL'S LIQUID 99751

Description: HEMPEL'S SHOPPRIMER ZS 15890 is a two-component, low-zinc, solvent-borne 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 blastcleaned 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, American Bureau of Shipping, Det Norske Veritas, Germanischer Lloyd, Korean Register of Shipping, Bureau Veritas, RINA, Italy and Maritime Register of Shipping, Russia. See REMARKS overleaf.

Availability: Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Colours/Shade nos:	Reddish grey/19890	Grey/19840
Finish:	Flat	Flat
Volume solids, %:	25 ± 1	26 ± 1
Theoretical spreading rate:	See REMARKS overleaf	See REMARKS overleaf
Flash point:	5°C/41°F	5°C/41°F
Specific gravity:	1.3 kg/litre - 10.8 lbs/US gallon	1.3 kg/litre - 10.8 lbs/US gallon
Dry to handle:	3-4 minutes at 20°C/68°F	3-4 minutes at 20°C/68°F
Fully cured:	4 days at 20°C/68°F (75% RH)	4 days at 20°C/68°F (75% RH)
V.O.C.:	620 g/litre - 5.15 lbs/US gallon (According to EPA Fed Ref Method 24)	620 g/litre - 5.15 lbs/US gallon (According to EPA Fed Ref Method 24)

Shelf life: 6 months (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.

The physical constants stated are nominal data according to the HEMPEL Group's approved formulas. They are subject to normal manufacturing tolerances and where stated, being standard deviation according to ISO 3534-1.

APPLICATION DETAILS:

Mixing ratio for 15890: Base 15899 : 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%)
(See REMARKS overleaf)

Pot life: 24 hours (20°C/68°F) (Closed container, constant stirring) (See REMARKS overleaf)

Nozzle orifice: .019"-.023"

Nozzle pressure: 80 bar/1200 psi
(Airless spray data are indicative and subject to adjustment)

Cleaning of tools: THINNER 08570 or 08700

Indicated film thickness, dry: 15 micron/0.6 mil (See REMARKS overleaf)

Indicated film thickness, wet: Not relevant

Recoat interval, min: When fully cured

Recoat interval, max: None (See REMARKS overleaf)

Safety: Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult HEMPEL Material Safety Data Sheets and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin and eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well ventilated areas.



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SURFACE PREPARATION:	Remove oil and grease with suitable detergent. Abrasive blasting to minimum Sa 2½ 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 gritblasting is necessary.
APPLICATION CONDITIONS:	The surface must be completely clean and dry with a temperature above the dew point to avoid condensation. Minimum steel temperature 0°C/32°F, max. approximately 55°C/131°F: Curing: Minimum temperature for curing 0°C/32°F, minimum 50%, preferably above 65% relative humidity. Consult separate APPLICATION INSTRUCTIONS.
SUBSEQUENT COAT:	As per specification.
REMARKS:	Certificates are issued under the former quality number 1589.
Film thicknesses and theoretical spreading rates:	On steel abrasive blasted to a profile Ra = 12½ micron (½ mil), equivalent to Rugotest No. 3, N10a-b, or Keane-Tator Comparator, 3 mils segments, the indicated 15 micron/0.6 mil film thickness corresponds to approx. 25 micron/1 mil measured on a smooth test panel (see special instructions for this procedure). The corresponding "theoretical" spreading rate will be 10.0 m ² /litre (401 sq.ft./US gallon) (reddish grey shade 19890). On steel abrasive blasted to a profile Ra = 6.3 micron (1/4 mil), equivalent to Rugotest No. 3, N9a, or Keane-Tator Comparator, 2 mils segments, the indicated 15 micron/0.6 mil film thickness corresponds to approx. 20 micron/0.8 mil measured on a smooth test panel (see special instructions for this procedure). The corresponding "theoretical" spreading rate will be 12.5 m ² /litre (501 sq.ft./US gallon) (reddish grey shade 19890). The shopprimer should be applied in a uniform film thickness. Avoid dry spray and exaggerated film thicknesses.
Thinning:	Depending on requested protective lifetime the dry film thickness may be varied. Minimum is approximately 10 micron/0.4 mil, maximum 20 micron/0.8 mil as specified on a blasted surface. Selection of proper thinner is related to application conditions. At high temperatures, a special THINNER 08740 with a very slow flash-off may be used - please consult separate APPLICATION INSTRUCTIONS.
Curing:	Curing time is prolonged at relative humidity below 75%.
Recoating:	No maximum recoating interval for adhesion, but dictated by gradual breakdown and damage during exposure and fabrication. Regarding treatment before recoating, please consult the APPLICATION INSTRUCTIONS.
Shelf life:	If shelf life is exceeded, it is usually possible to use the zincpaste (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 below. In any case, possible surpassing of storage time will be of 1-2 months maximum (20°C/68°F) for the LIQUID.
Pot life:	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.
Note:	HEMPEL'S SHOPPRIMER ZS 15890 is for professional use only.
ISSUED BY:	HEMPEL A/S - 1589019890C00010

This Product Data Sheet supersedes those previously issued.

For explanations, definitions and scope, see "Explanatory Notes" in the HEMPEL Book.

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Product data are subject to change without notice and become void five years from the date of issue.