
18500: BASE 18509: CURING AGENT 97710

Description:	HEMUDUR 18500 is a water-borne two-component polyamine cured epoxy primer containing zinc phosphate as corrosion inhibiting pigment. It cures to a strong and rust-preventing coat.
Recommended use:	As a general purpose primer on steel constructions (see REMARKS overleaf).
Service temperature:	Maximum, dry exposure only: 140°C/284°F
Certificates/Approvals:	Complies with EU Directive 2004/42/EC: subcategory j.
Availability:	Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Shade nos/Colours:	12170* / Grey.
Finish:	Semi-flat
Volume solids, %:	50 ± 1
Theoretical spreading rate:	6.7 m ² /l [268.7 sq.ft./US gallon] - 75 micron/3 mils
Flash point:	None.
Specific gravity:	1.4 kg/litre [11.7 lbs/US gallon]
Surface-dry:	2 approx. hour(s) 20°C/68°F
Dry to touch:	4 approx. hour(s) 20°C/68°F
Fully cured:	7 day(s) 20°C/68°F
VOC content:	22 g/l [0.2 lbs/US gallon]
Shelf life:	1 year for BASE and 3 years (25°C/77°F) for CURING AGENT from time of production. <i>*other shades according to assortment list.</i>

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

APPLICATION DETAILS:

Version, mixed product:	18500
Mixing ratio:	BASE 18509: CURING AGENT 97710 2 : 3 by volume
Application method:	Airless spray / Brush
Thinner (max.vol.):	Fresh water (5%) / Fresh water (5%)
Pot life:	1 hour(s) 20°C/68°F (see REMARKS overleaf); 30 minutes (15°C/59°F)
Nozzle orifice:	0.015 - 0.019 " (see REMARKS overleaf)
Nozzle pressure:	Minimum: 150 bar (Airless spray data are indicative and subject to adjustment)
Cleaning of tools:	Fresh water (see REMARKS overleaf)
Indicated film thickness, dry:	75 micron [3 mils] (see REMARKS overleaf)
Indicated film thickness, wet:	150 micron [6 mils]
Overcoat interval, min:	see REMARKS overleaf
Overcoat interval, max:	see REMARKS overleaf

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:

New steel: Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Abrasive blasting to Sa 2½ (ISO 8501-1:2007). For temporary protection, if required, use a suitable shopprimer. All damage of shopprimer and contamination from storage and fabrication should be thoroughly cleaned prior to final painting.

Repair and maintenance: Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Remove rust and loose paint by abrasive blasting or power tool cleaning to St 3 (ISO 8501-1:2007) (minor areas) before recoating. For repair and touch-up use: HEMUDUR 18500.

APPLICATION CONDITIONS:

Use only where application and curing can proceed at temperatures above: 15°C/59°F. Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation. Relative humidity during application and drying: maximum 80%, preferably 40-60%. Good ventilation during application and drying is necessary. During drying it is of utmost importance that sufficient ventilation is covering all parts of the surfaces painted. Ventilation requirements to remove the water vapours liberated during application and drying are approx. 75 m³/litre of paint at 20°C/68°F. (Relative humidity of the air supply 40%)

PRECEDING COAT:

None, or as per specification. Recommended systems are: HEMPADUR ZINC 17360, HEMUDUR ZINC 18560.

SUBSEQUENT COAT:

According to specification. Recommended systems are: HEMUDUR, HEMUCRYL, HEMUTHANE.

REMARKS:

VOC - EU Directive 2004/42/EC:

Product	As supplied	5 vol. % thinning	Limit phase II, 2010
1850012170	22 g/l	21 g/l	140 g/l

For VOC of other shades, please refer to Safety Data Sheet.

Application(s):

The durability/performance of water-borne coatings is to a very high degree depending on the: fulfilment of good painting practice. For instance application to riveted and skip-welded constructions will require extra care when coating sharp edges, riveted joints, etc. Avoid too high thicknesses per coat. Preferably apply an extra stripe coat.

If the painted items will be exposed to humidity/water at temperatures below 15°C/59°F shortly after finishing the paint application, it is of utmost importance for later good performance that the following rules are complied with:

Excessive film thickness must be avoided.

The (last applied) paint layer must dry for at least 6 hours at 20°C/68°F - 40-60% RH before exposure to temperatures below 15°C/59°F and/or condensation/water exposure.

Avoid outdoor application in seasons with low night temperatures especially in combination with condensation or rain.

Pot life: The pot life time is not visible eg by an increase in viscosity. Although the paint still looks usable after: 1 hour(s) 20°C/68°F; It is important that the paint is no longer used as its protective properties are dramatically reduced after this time. Be aware that the pot life will decrease when the temperature decreases. Eg decreases to: 30 minutes (15°C/59°F). Use eg an alarm clock to indicate when the pot life has been exceeded.

Application equipment:

For proper film formation the recommended nozzle sizes should be used.

Film thicknesses/thinning:

May be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate and may influence drying time and overcoating interval. Normal range dry is: 50-100 micron/2-4 mils. Application at lower film thicknesses is possible, but requires thinning for proper film formation.

"Edge effect":

As water-borne paints have a high tendency to "withdraw" from sharp edges, etc., proper corrosion protection will be highly supported by careful rounding of edges and that any joints are completely closed and tight.

Cleaning of tools:

Tools must be cleaned immediately with lukewarm soap water and/or fresh water followed by thoroughly rinsing to remove residues of detergent. Dried remains of paint may be removed with HEMPEL'S TOOL CLEANER 99610.

Storage Conditions:

Store at temperatures between 5-40°C/41-104°F. Shelf life is reduced at temperatures above 30°C/86°F. Do not expose to frost during storage and transport, or before the coating is dry.

Overcoating:

Overcoating intervals related to later conditions of exposure: If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

Before overcoating after exposure in contaminated environment, clean the surface thoroughly with high pressure fresh water hosing and allow drying.

A specification supersedes any guideline overcoat intervals indicated in the table.

Environment	Atmospheric, medium					
Surface temperature:	10°C (50°F)		20°C (68°F)		30°C (86°F)	
	Min	Max	Min	Max	Min	Max
HEMUDUR	10 h	None	4 h	None	2 h	None
HEMUCRYL	15 h	18 d	6 h	7 d	3 h	3.5 d

NR = Not Recommended, Ext. = Extended, m = minute(s), h = hour(s), d = day(s)

Overcoating note:	Clean the surface carefully before overcoating. To check whether the quality of the surface cleaning is adequate, a test patch may be relevant.	
Note:	HEMUDUR 18500 For professional use only.	
ISSUED BY:	HEMPEL A/S	1850012170

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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