

HEMUDUR* 18502

CURING AGENT 97700

Description:	HEMUDUR 1850 is a water-borne two-component polyamine cured epoxy primer containing corrosive inhibiting pigment. It cures to a strong and rust-preventing coat.
Recommended use:	In mildly to moderately corrosive environments as a general purpose primer on steel constructions (see REMARKS overleaf).
Service temperatures:	Maximum, dry: 140°C/284°F.
Availability:	Subject to confirmation.

PHYSICAL CONSTANTS:

Colours/Shade nos:	Grey/12170 - red/51320 (<i>Available in a MIO shade, colour no. 12430, on request</i>)
Finish:	Semi-flat
Volume solids:	45%
Theoretical spreading rate:	6.0 m ² /litre - 75 micron 241 sq.ft./US gallon - 3 mils
Flash point:	> 66°C/151°F
Specific gravity:	1.3 kg/litre - 10.9 lbs/US gallon
Surface dry:	2 (approx.) hours at 20°C/68°F
Dry to touch:	4 (approx.) hours at 20°C/68°F
Fully cured:	7 days at 20°C/68°F
V.O.C.:	9 g/litre - 0.1 lbs/US gallon 19 g/litre - 0.2 lbs/US gallon (<i>ASTM D 3960</i>)

*The physical constants are subject to normal manufacturing tolerances.
Further reference is made to "Explanatory Notes" in the Hempel Book.*

APPLICATION DETAILS:

Mixing ratio for 18502:	Base 18509 : Curing agent 97700 3 : 2 by volume
Application method:	Airless spray Brush
Thinner (max.vol.):	Fresh water (5%) Fresh water (5%)
Pot life:	4 hrs (20°C/68°F) (<i>See REMARKS overleaf</i>) 1 hr (10°C/50°F)
Nozzle orifice:	.015"-.019" (<i>See REMARKS overleaf</i>)
Nozzle pressure:	Min. 150 bar/2200 psi (<i>Airless spray data are indicative and subject to adjustment</i>)
Cleaning of tools:	Fresh water (<i>See REMARKS overleaf</i>)
Indicated film thickness, dry:	75 micron/3 mils (<i>See REMARKS overleaf</i>)
Indicated film thickness, wet:	175 micron/7 mils

Recoating:	Recoating intervals related to later conditions of exposure: (75 micron/3 mils dry film thickness of HEMUDUR 1850)
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	Minimum		Maximum	
Surface temperature	20°C/68°F		20°C/68°F	
	Atmospheric		Atmospheric	
Recoated with	Mild	Medium	Mild	Medium
HEMUCRYL	4 hours	6 hours	None*	1 week
HEMUDUR	4 hours	6 hours	None*	None*

* Before recoating, clean the surface thoroughly for all contamination. To check adequate quality of the preparatory cleaning, a test patch is recommended before actual recoating.

If the maximum interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

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SURFACE PREPARATION:	<p>New steel: Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Abrasive blasting to minimum Sa 2½, SSPC-SP-10. For temporary protection, if required, use suitable shopprimer. All damaged shopprimer and contamination from storage and fabrication should be thoroughly cleaned prior to final painting. For repair and touch-up use HEMUDUR 1850.</p> <p>Repair: Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Remove rust and loose paint by abrasive blasting or power tool cleaning to St 3 (minor areas) before recoating. Touch up bare spots with HEMUDUR 1850.</p>
APPLICATION CONDITIONS:	<p>Use only where application and curing can proceed at temperatures above 10°C/50°F. Apply on a clean and dry surface with a temperature above the dew point to avoid condensation. Relative humidity: During drying below 80%, preferably between 40-60%. Good ventilation during application and drying is necessary. During drying it is of the 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%.)</p>
PRECEDING COAT:	None, HEMPADUR ZINC 1536, HEMUDUR ZINC 1856 or according to specification.
SUBSEQUENT COAT:	HEMUDUR or HEMUCRYL according to specification.
REMARKS:	
Application:	For proper film formation the recommended nozzle sizes should be used.
Film thicknesses:	May be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate and may influence amount of thinning necessary, drying time and recoating interval. Normal range 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 demands careful rounding of edges and that any joints are completely closed and tight.
Exposure to low temperature shortly after application:	If the painted items will be exposed to humidity/water at temperatures below 10°C/50°F shortly after finishing the paint application, it is of utmost importance for later good performance that the following rules are complied with:
	<ul style="list-style-type: none">- Excessive film thickness must be avoided- The (last applied) paint layer must dry for at least 24 hours at 20°C/68°F before exposure.
Cleaning of tools:	Tools must be cleaned immediately with fresh water or lukewarm soap water. Dried paint residues may be removed by use of HEMPEL'S NAVI WASH 9933 undiluted or HEMPEL'S TOOL CLEANER 9961.
Shelf life/storage:	Store at temperatures between 5-40°C/41-105°F. The shelf life is reduced at temperatures above 30°C/86°F. Do not expose to frost during storage and transport.
Pot life:	The pot life time is not indicated eg by an increase in viscosity. Although the paint still looks usable after 4 hours at 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 to 1 hour at 10°C/50°F. Use eg an alarm clock to tell when the pot life has been passed.
Note:	HEMUDUR 1850 is for professional use only.
SAFETY:	<p>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. Harmful or fatal if swallowed; immediately seek medical assistance if swallowed. Avoid inhalation of possible solvent vapours or paint mist, as well as paint contact with skin and eyes. Apply only in well ventilated areas and ensure that adequate forced ventilation exists when applying paint in confined spaces or when the air is stagnant. Always take precautions against the risks of fire and explosions.</p>

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