HEMPADUR® ZINC 15360

BASE 15369 with CURING AGENT 95740

Description:

HEMPADUR ZINC 15360 is a two-component polyamide cured zinc-rich epoxy primer. It cures to a hard wearing and highly weather-resistant coating. Offers cathodic protection of local mechanical damage.

Recommended use:

For on-line application on containers. Can be used as a zinc-rich epoxy primer for other purposes according to separate painting specification.

Service temperatures:

Maximum, dry exposure only: 160°C/320°F, however depending on the subsequent coat.

Certificates/Approvals:

Approved as a welding primer by Lloyd's Register of Shipping.
Complies with SSPC-Paint 20, Level 2, in respect to zinc content.
Complies with ISO 12944-5, as zinc-rich primer.
Complies with EU Directive 2004/42/EC, subcategory j (see REMARKS overleaf).

Availability:

Part of Group Assortment. Local availability subject to confirmation.

PHYSICAL CONSTANTS:

Colours/Shade nos:	Red-grey/19830
Finish:	Semi-flat
Volume solids, %:	50 ± 1
Theoretical spreading rate:	12.5 m^2/litre - 40 micron 501 sq.ft./US gallon - 1.6 mils
Flash point:	30°C/86°F
Specific gravity:	2.3 kg/litre - 19.2 lbs/US gallon
Surface dry:	30 minutes at 20°C/68°F *(ISO 1517)*
Dry to touch:	2 *(app.)* hours at 20°C/68°F
Fully cured:	7 days at 20°C/68°F
V.O.C.:	460 g/litre - 3.8 lbs/US gallon

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 15360:	Base 15369 : Curing agent 95740 4 : 1 by volume		
Application method:	Airless spray	Air spray	Brush
Thinner (max.vol.):	08450 (30%)	08450 (50%)	08450 (5%)
	For on-line container production thinning according to specification		
Pot life:	8 hours (20°C/68°F)		
Nozzle orifice:	.017"-.021"		
Nozzle pressure:	150 bar/2200 psi *(Airless spray data are indicative and subject to adjustment)*		
Cleaning of tools:	HEMPEL'S TOOL CLEANER 99610		
Indicated film thickness, dry:	40 micron/1.6 mils *(See REMARKS overleaf)*		
Indicated film thickness, wet:	75 micron/3 mils		
Recoat interval, min:	As per separate APPLICATION INSTRUCTIONS		
Recoat interval, max:	As per separate APPLICATION INSTRUCTIONS		

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, etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning.
Abrasive blasting to Sa 2½ with a sharp-edged surface profile corresponding to Rugotest No. 3, BN9a, Keane-Tator Comparator, 2.0 G/S or ISO Comparator, Medium (G).

APPLICATION CONDITIONS: Use only where application and curing can proceed at temperatures above 10°C/50°F The temperature of the surface must also be above these limits, respectively.
The temperature of the paint itself should be 15°C/59°F or above. Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation.
In confined spaces provide adequate ventilation during application and drying.

SUBSEQUENT COAT: According to specification.

REMARKS:

VOC - EU directive 2004/42/EC:

	As supplied	30 vol. % thinning	Limit phase I, 2007	Limit phase II, 2010
VOC in g/l	460	550	550	500

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

Certificate has been issued under the quality number 1536.
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.

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 15-50 micron/0.6-2.0 mils.
(The dry film thickness range does not take into account the correction factors for rough surfaces as listed in ISO 19840).

Stirring: Before mixing with the curing agent stir the base thoroughly in order to redisperse any possible settling after storage. After mixing it is equally important to maintain stirring to keep the wet paint as a homogeneous mixture.
This is specifically important in case of a high level of thinning and/or long break in application, where the risk of settlement of zinc particles is the highest.

Recoating: Recoating intervals related to later conditions of exposure: Consult separate APPLICATION INSTRUCTIONS.
If the maximum recoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.
Before recoating after exposure in contaminated environment, clean the surface thoroughly by (high pressure) fresh water hosing and allow drying. In addition, scrubbing with a stiff brush may be necessary to remove zinc corrosion products (white rust).

Note: **HEMPADUR ZINC 15360 is for professional use only.**

ISSUED BY: HEMPEL A/S - 15360198300006

APPLICATION INSTRUCTIONS

For product description refer to product data sheet

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Film thickness:

Depending on the area of use the typical dry film thickness may vary between 15 micron/0.6 mil and up to 50 micron/2 mils. This will alter amount of thinning needed, spreading rate, drying time and recoating interval as described below.
Indicated film thicknesses are as follows:

Shopprimer, Containers:

When used as a shopprimer in container systems a typical dry film thickness is 15 micron/0.6 mil. Dilute 100-150% for airless spray, corresponding wet film thickness 60-75 micron/2.4-3 mils. (**Note:** In the case of a high degree of thinning, the mixture is to be stirred constantly and recirculate until all paint has been used).

Primer, container systems:

When used as a primer in container systems the dry film thickness is approx. 30-40 micron/1.2-1.6 mils corresponding to 60-80 micron/2.4-3.2 mils wet film thickness. Dilute 5-10% for airless spray.

Spreading rates:

The film thickness and the spreading rate are inversely proportional. By controlling the spreading rate, a check of the film thickness can be made.

Theoretical spreading rate calculated for undiluted paint:

15 micron/0.6 mil is 33.3 m^2/litre or 1337 sq.ft./US gallon
30 micron/1.2 mils is 16.7 m^2/litre or 668 sq.ft./US gallon
50 micron/2 mils is 10.0 m^2/litre or 401 sq.ft./US gallon

Thinner:

Airless spray: HEMPEL'S THINNER 08450 or 08570. Lowest nozzle pressure should be used when highest amount of thinner is added. THINNER 08570 is used for fast setting at application in shops. (Be aware of increased risk of dry spray).

Air spray and application by brush: Usually only HEMPEL'S THINNER 08450.

Stirring:

Before mixing with the curing agent stir the base thoroughly in order to redisperse any possible settling after storage. After mixing it is equally important to maintain stirring to keep the wet paint as a homogeneous mixture.
This is specifically important in case of a high level of thinning and/or long break in application, where the risk of settlement of zinc particles is the highest .

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Physical data versus temperature:

Drying time and recoating interval vary with film thickness, drying/curing temperature and later exposure conditions.

HEMPADUR ZINC 15360 in a dry film thicknesses of 30-40 micron/1.2-1.6 mils:

Surface temperature	10°C/50°F	20°C/68°F	30°C/86°F
Drying time, approx minutes	1 hour	30	20
Curing time, approx days	18	7	4
MINIMUM recoating interval related to later conditions of exposure:			
Interval for recoating with 46330, 46370, 46410 58030			
Atmospheric, medium	40 minutes	15 minutes	7 minutes
Atmospheric, severe	2½ hours	1 hour	30 minutes
Immersion	Not relevant	Not relevant	Not relevant
Interval for recoating with HEMPADUR and HEMPATHANE qualities			
Atmospheric, medium	5 hours	2 hours	1 hour
Atmospheric, severe	8 hours	3 hours	1½ hours
Immersion*	15 hours	6 hours	3 hours
MAXIMUM recoating interval related to later conditions of exposure:			
Interval for recoating with 46330, 46370, 46410			
Atmospheric, medium	40 hours	16 hours	8 hours
Atmospheric, severe	30 hours	12 hours	6 hours
Immersion	Not relevant	Not relevant	Not relevant
Interval for recoating with 58030			
Atmospheric, medium	10 days	4 days	2 days
Atmospheric, severe	5 days	2 days	1 day
Immersion	Not relevant	Not relevant	Not relevant
Interval for recoating with HEMPADUR qualities			
Atmospheric, medium	None	None	None
Atmospheric, severe**	75 days	30 days	15 days
Immersion**	75 days	30 days	15 days
Interval for recoating with HEMPATHANE qualities			
Atmospheric, medium	25 days	10 days	5 days
Atmospheric, severe	7½ days	3 days	1½ day
Immersion	Not relevant	Not relevant	Not relevant

* NOT relevant for HEMPATHANE Qualities
**Depending on actual local conditions, extended maximum recoating intervals may apply. Please contact HEMPEL for further advice.

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The minimum recoating intervals assume sufficient ventilation and correct application. In case of forced ventilation and/or drying at higher temperatures sufficient "flash-off"time should be allowed for. For approx.15 micron/1 mil dry film thickness count for minimum 10 minutes flash-off (at 20°C/68°F), for approximately 30 micron/1.6 mils minimum 15 minutes, for approximately 50 micron/3 mils minimum approximately 30 minutes.

The short minimum recoating intervals when recoated with 46330, 46370 and 46410 are only provided in case the finished paint system is through dry before exposure to the environment.

If the maximum recoating interval is exceeded, whatever the subsequent coat, roughening of the surface is necessary to ensure optimum intercoat adhesion.

Before recoating after exposure in contaminated environment, irrespective of recoating interval, clean the surface thoroughly e.g. by (high pressure) fresh water hosing and allow to dry. **It is very important that any possible zinc salts, "white rust", are removed**. Scrubbing with a stiff brush and plenty of water may be required.

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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