TECHNICAL INFORMATION

GEHOPON-E35R-Zink

2C-EP Zinc rich Primer, quick curing for steel surfaces

■ FIELDS OF APPLICATION

High-grade corrosion protection for blast-cleaned steel surfaces in steel girder constructions, construction of containers etc.

Mainly used as primer under suitable top coats. For certain steel girder constructions GEHOPON-E35R-Zink can be applied as a single layer coating system without top coats.

■ PRODUCT PROPERTIES

GEHOPON-E35R-Zink is a highly pigmented zinc dust primer based on epoxy resin.
GEHOPON-E35R-Zink shows excellent adhesion to steel surfaces as well as temperature resistance and excellent corrosion protection capacity.

GEHOPON-E35R-Zink cures quickly at normal temperatures. It can also be used at low temperatures - at least 0 °C.
GEHOPON-E35R-Zink is suitable for a multitude of different top coats. However, as with all zinc dust primers, the top coatings must be „compatible“ with zinc dust.

Interesting information about zinc dust primers can be found in „Merkblatt Nr. 4” published by the Bundesausschuss Farbe und Sachwertschutz, Frankfurt.

Capacities

After curing, GEHOPON-E35R-Zink is resistant to oils and greases, largely resistant to solvents as well as resistant to abrasion.

As a result of its good resistance to solvents, GEHOPON-E35R-Zink is not only used under two-pack paint systems but also under coating materials using aggressive solvents (e.g. PVC top coats).

Temperature resistance: 160 °C permanently
200 °C short time resistance (dry heat each)

■ PRODUCT DATA

	GEHOPON-E35R-Zink	Curing agent
Product number	E35R-790	EX-80
Colour	Grey	
Mixing ratio	15 parts by weight	1 part by weight
Form of delivery	Ready for use after mixture with curing agent	
Shelf life	At least 12 months in original cans at normal temperature	
Suitable thinner	V-538	

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Theoretical parameters

GEHOPON-E35R-Zink, E35R-790

Density (g/mL)	Solid content (weight %)	VOC-content (weight %)	VOC-content per 10 µm DFT* (g/m²)	Solid content by volume (%)	Solid content by volume (mL/kg)
2.5	85	15	6.6	57	223

DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m²)	Spreading rate (m²/kg)
80	141	0.358	2.79

Remarks

- All values are relevant for the mixture in case of two-pack materials
- DFT: Dry film thickness
- All values named are approximate values and relevant for the quality (colour). The values may differ slightly for other colours.

* baseline for calculation: consumption in g/m² at DFT 10 µm

Notes referring to Directive 2004/42/EC „Decopaint-Directive“

Subcategory as referred to in Annex IIA	VOC limit values (Phase II from 2010)	Max. VOC content of the product in its ready for use condition (including the max. amount of diluents as given in “Application methods”)
J (“Two-pack reactive performance coatings”) Type SB	500 g/l	< 500 g/l

Coating systems

Substrate	Steel	
Surface preparation	Blast-cleaning in preparation grade Sa 2 ½ in accordance with EN ISO 12944-4	
	Product	**NDFT (µm)**
Primer coating	GEHOPON-E35R-Zink	80
Intermediate coating(s)	GEHOPON-E97R-ZB or WIEREGEN-M87-ZB	80
Top coating	WIEREGEN-M87	80

The coating system/s named are examples proved in practice which usually can be modified. The choice of coating materials as well as their number and film thickness depends on the stress to be expected, existing specifications and the methods of application.

■ INSTRUCTIONS FOR APPLICATION

Surface preparation

Steel surfaces:
Blast-cleaning in accordance with EN ISO 12944-4, surface preparation grade Sa 2 ½. G-grade medium roughness in accordance with EN ISO 8503-1

Air and surface temperature

Optimal results at temperatures of 15 to 25 °C, not below 0 °C

Relative humidity

Max. 80 % relative humidity

The surface temperature of the parts to be coated must be at least 3 °C above the dew point of the surrounding air throughout the application. (see basic specification for corrosion protection EN ISO 12944-7)

Comments on processing

Mixing

Mix with the enclosed quantity of curing agent, preferably with a mechanical mixer. Material must be stirred again after 15 minutes. Then the mixture is ready for use.

Application methods

Means of application / parameters	recommended nominal dry film thickness per working operation	Addition of thinner V-538
Airless spraying Nozzle diameter: 0.38 to 0.63 mm Material pressure: 150 to 300 bar	60 to 80 µm	up to 2 %
High pressure/air spraying Nozzle diameter 1.5 to 2.0 mm Pressure: 4 to 5 bar	60 to 80 µm	1 to 5 %
Brush application (depending on temperature)	40 to 60 µm	up to 1 %
In case of roller coating / brush application several working operations can be necessary to obtain a uniform layer thickness and appearance. Among other things this depends on the colour, the processing procedures and equipment, the ambient conditions and the geometry of the parts to be coated.		

Remarks

- The values above are related to a temperature of approximately 20 °C and are recommendations respectively approximate values. In practice it may be necessary to make modifications.

Cleaning of equipment

With thinner V-538

Pot life

4 to 6 hours (depending on temperature)

Drying times

At a DFT of 80 µm and
an air and object temperature of

	20 °C	10 °C	5 °C
Dry to touch (TG 1):	Approx. 15 minutes	Approx. 20 minutes	Approx. 25 minutes
Tack free (TG 3):	Approx. 30 minutes	Approx. 45 minutes	Approx. 1 hour
Ready for over-coating (TG 6):	Approx. 1.5 hours	Approx. 2 hours	Approx. 2.5 hours

(TG = degree of drying in accordance with DIN 53150)

■ SAFETY MEASURES

The curing agent produces an alkaline reaction on skin and mucous membrane (eyes). Soiling must be avoided. In case of direct contact clean thoroughly with water and soap.
The relevant data concerning safety measures can be found in the material safety data sheet of this product.
The valid issue of the material safety data sheet is available from our website www.geholit-wiemer.de.