LACK– UND KUNSTSTOFF– CHEMIE GMBH

TECHNICAL INFORMATION

GEHOPON-EW18-ZB

2C-EP Hydro Intermediate

■ FIELDS OF APPLICATION

Together with suitable primers and top coatings it is possible to achieve high-grade corrosion protection systems on steel with an excellent weather resistance.

■ PRODUCT PROPERTIES

GEHOPON-EW18-ZB is a two-pack coating material based on a waterborne epoxy resin. The material is low on odour, not inflammable and not explosive.

After suitable surface preparation (see “Instructions for application”), hot-dip galvanised steel parts can also be coated directly with GEHOPON-EW18-ZB.

Capacities

Together with suitable top coatings - coating systems with excellent resistance to chemicals, fuels, oil and aggressive atmosphere can be obtained.

Test certificates

Test certificate PB300/199/11 and PB300/201/11 from 2012-04-03, IKS Dresden GmbH:

Based on this test certificates it will be confirmed that corrosion protection of the coating systems named on page 2 fulfill the requirements of TL/TP-KOR-Stahlbauten Blatt 87.

■ PRODUCT DATA

	GEHOPON-EW18-ZB	Hydro curing agent
Product number and colours	EW18-7902 Grey, about DB 702	EZ-18
Mixing ratio	4 parts by weight	1 part by weight

Form of delivery: After mixture with curing agent ready to use

Shelf life: At least 12 months in original cans at normal temperature

Suitable thinner: Water (at least drinking water quality)

Theoretical parameters

GEHOPON-EW18-ZB, EW18-7902

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)
1.4	67	< 0.5	0.1	54	380
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m²)		Spreading rate (m²/kg)	
80	150	0.210		4.8	

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 fort he 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 WB	140 g/l	< 140 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-EW18-Metallgrund	80
Intermediate coating	GEHOPON-EW18-ZB	80
Top coating	GEHOTEX-W92 or WIEREGEN-M87 or WIEREGEN-DW18	80

The coating system/s named are examples proven 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

Coatings
Adhesion-reducing substances must be removed.

Hot-dip galvanised steel surfaces:
If GEHOPON-EW18-ZB is to be applied directly on hot-dip galvanised surfaces please observe the following instructions:
Dry and clean surfaces are essential for good adhesion of coating materials. Besides contaminants like grease, oil, dust, etc. especially zinc salts (zinc corrosion products) have to be removed totally.
For hot-dip galvanised steel parts, which shall be exposed to natural weathering or condensation, a surface preparation by sweep-blasting (in accordance with EN ISO 12944-4) is necessary. Sweep-blasted parts must show a matted surface.
Remark: Zinc salts are forming relatively quick and cannot - or hardly - be recognised at the beginning.

Air and Surface temperature

Optimal results at 15 to 25 °C, not below 10 °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 thoroughly 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 water (At least drinking water)
Airless spraying Nozzle diameter: 0.33 to 0.48 mm Material pressure: 150 to 250 bar	80 µm	up to 3 %
High pressure/air spraying Nozzle diameter: 1.5 to 2.0 mm Atomizer pressure: 3 to 4 bar	80 µm	Approx. 3 %
Brush application / roller coating	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 rough guides. In practice it may be necessary to make modifications.

Cleaning of equipment With water

Pot life 2 hours at a temperature of 20 °C

Drying and curing times Related to a temperature of 20°C

Dry to touch: After approximately 60 minutes
Tack free: After approximately 3 hours
Ready for re-coating: After approximately 18 hours
Optimally cured: After 7 days

■ SAFETY MEASURES

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.