

GEHOPON-E9-Intermediate

Two-pack epoxy combination high-solid intermediate coating for steel structures under high corrosion stress

■ FIELDS OF APPLICATION

For high-grade corrosion protection of steel structures which are exposed to high stresses caused by aggressive atmosphere, de-icing salt, condensation etc., e.g. for chemical plants, harbour constructions, street and railway constructions. The number of layers depends on the respective stress.

■ PRODUCT PROPERTIES

GEHOPON-E9-Intermediate, based on a two-pack epoxy resin combination and pigments with a high barrier-effect, is a product with a high solid content by volume.

The material is preferably applied by airless spraying with dry film thicknesses of 100 to 160 µm per working operation. Brush application or roller coating (80 µm) is also possible, however in this case a specific surface texture will be obtained.

After suitable surface preparation (see "Instructions for application"), hot-dip galvanised steel parts can also be coated directly with GEHOPON-E9-Intermediate.

Capacities

Together with suitable two-pack primer and top-coatings (see coating systems), corrosion protection systems can be obtained with excellent mechanical resistance properties, stability against chemicals and aggressive atmosphere as well as weather and light resistance.

Temperatures resistance (dry heat): up to 120 °C (permanent)

■ PRODUCT DATA

GEHOPON-E9-Intermediate

Curing agent

Product number and colours

E9-7602 grey DB 702 (MIO)
(Other colours on request)

EX-9

Mixing ratio

11 parts by weight

1 part by weight

Form of delivery

Ready for application after mixture with curing agent

Shelf life

At least 12 months in original cans at normal temperature.

Suitable thinner

V-568

Theoretical parameters

GEHOPON-E9-Intermediate , E9-7602

Density (g/mL)	Solid content (weight %)	VOC-content		Solid content by volume	
		(weight %)	per 10 µm DFT* (g/m ²)	(%)	(mL/kg)
1.8	89	11	2.6	77	428
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m ²)		Spreading rate (m ² /kg)	
80	104	0.187		5.3	

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

GEHOPON-E9-Intermediate

**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	At least preparation grade Sa 2 ½ in accordance with DIN EN ISO 12944-4	
	Product	NDFT (µm)
Primer coating	GEHOPON-E9-Primer	100 to 160
Intermediate coating/s	GEHOPON-E9-Intermediate	100 to 160
Top coating	WIEREGEN-M5	100 to 150

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

Coatings

Adhesion-reducing substances must be removed.

Hot-dip galvanised steel surfaces:

If GEHOPON-E9-Intermediate 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 DIN 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 temperatures of 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 DIN EN ISO 12944-7).

The influence of moisture during the curing process can result in discolouring, blooming or a slight occurrence of scars.

GEHOPON-E9-Intermediate

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 thinner V-568
Airless spraying Nozzle diameter: 0.38 to 0.74 mm Material pressure: 150 to 250 bar	80 to 160 µm	2 to 4 %
Roller coating / brush application	60 to 80 µm	up to 2 %
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 Directly after use with V-568

Pot life Approximately 4 hours (depending on temperature)

Drying and curing times (At a temperature of 20 °C and a dry film thickness of 160 µm)

Dry to touch: After approx. 1 hour
Tack free: After 5 to 6 hours
Ready for over-coating: After 16 to 24 hours

Waiting time between working operations

Air temperature	5 - 10 °C	10 - 15 °C	15 - 20 °C
Waiting time minimum	3 - 4 days	2 days	1 day

■ **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.

The statements made here are based on the present state of our knowledge. We do not assume liability for damages resulting from the use of the material or from any advice given by our employees. In this respect, any advice given by our employees has to be seen as not binding. The processor is responsible for the supervision of construction, the maintaining of process guidelines and the observation of the established rules of techniques, even if our employees are present at the time our material is being applied.

This information is subject to modifications due to technical improvements. The latest edition of this information replaces all previous issues.