

2C-EP Primer, quick curing

■ **FIELDS OF APPLICATION** Quick curing two-pack protective primer coating for subsequent two-pack systems based on epoxy resin or polyurethane for bridges, steel structures, tanks and devices, for constructions exposed to aggressive atmosphere and similar objects.

■ **PRODUCT PROPERTIES** GEHOPON-E920-Metallgrund-Rapid is based on epoxy resin and shows excellent adhesion on steel surfaces.

The material cures quickly at normal temperature, but can also be used at low temperatures (minimum 0 °C).
Due to its composition GEHOPON-E920-Metallgrund-Rapid is perfectly suited as primer coating for subsequent two-pack coating systems. Together with suitable two-pack top coatings, protective coating systems can be achieved with excellent resistance against chemicals, against aggressive atmosphere and the effects of natural weathering and with colour stability.

Temperature resistance (dry heat): 120 °C permanently, up to 150 °C short term

■ **PRODUCT DATA** GEHOPON-E920-Metallgrund-Rapid RWE-Code-No. Curing agent

Product number and colour	E920-102	GB-20-S-1002	EX-920
	Sand yellow approx. RAL 1002 E920-124	GB-20-S-1024	
	Ochre yellow approx. RAL 1024		

Mixing ratio 15 parts by weight 1 part by weight

Form of delivery Ready for brush application after mixture with curing agent.

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

Suitable thinner V-538

Theoretical parameters GEHOPON-E920-Metallgrund-Rapid, E920-124

Density (g/mL)	Solid content (weight %)	VOC-content		Solid content by volume	
		(weight %)	per 10 µm DFT* (g/m ²)	(%)	(mL/kg)
1.65	81.5	18.5	4.7	65	395
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m ²)		Spreading rate (m ² /kg)	
120	184	0.305		3.3	

- 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

**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 The coating system can be found in the current version of the RWE directive for corrosion protection.

■ **INSTRUCTIONS FOR APPLICATION**

Surface preparation Steel surfaces:

Blast-cleaning in accordance with EN ISO 12944-4, surface preparation grade Sa 2 ½.

Processing conditions

Air and surface temperature Optimal results at temperatures of 5 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 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-538
Airless spraying Nozzle diameter: 0.38 to 0.68 mm Material pressure: approx. 150 to 250 bar	120 µm	up to 5 %
High pressure/air spraying Nozzle diameter: 1.5 to 2.0 mm Pressure: 3 to 4 bar	120 µm	4 to 8 %
Roller coating / brush application	40 to 60 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 With thinner V-538

Pot life Approximately 4 hours (depending on temperature)

Drying and curing times

	Related to a DFT of 80 µm and air/surface temperatures of		
	20 °C	10 °C	5 °C
Dry to touch (drying stage1):	approx. 30 minutes	approx. 1 hour	approx. 1.5 hours
Tack free (drying stage 3):	approx. 1.5 hours	approx. 2.5 hours	approx. 3.5 hours
Over-coating interval (drying stage 6):	3 to 4 hours	5 to 6 hours	6 to 7 hours

(drying stage according to EN ISO 9117-5)

■ **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.

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.