

2C-EC Floor Coating
- Test certificate on low-flammability -
- Roller coating for OS8-System -

■ **FIELDS OF APPLICATION**

GEHOPON-E600 is used to produce seamless floor coatings on mineral substrates such as concrete or cement screed. These coatings fulfil highest requirements as to mechanical strength, resistance to chemicals, cleanliness and hygiene, e.g. in production rooms, storerooms, motor vehicle halls and hangars, energy and water supply plants, railway stations, workshops, laboratories, beverage plants, garages, corridors etc.

■ **PRODUCT PROPERTIES**

GEHOPON-E600 is a coloured two-pack coating material based on solvent-free epoxy resin, contains pigments and fine-grained fillers. The material shows excellent spreading properties and trapped air bubbles are quickly set free.

Cured coatings made of GEHOPON-E600 are resistant to compression and abrasion, highly resistant to mechanical stresses, trafficable and can easily be decontaminated.

Capacities

Cured GEHOPON-E600 is resistant to water, oil, petrol, saline solutions and aliphatic solvents and furthermore shows excellent resistance to alkalis.

As with all coatings based on epoxy resin, coatings made of GEHOPON-E600 tend to show colour changes and chalking when exposed to natural weathering.

Test certificates

- Test reports from 2007-05-30 of the MPA Stuttgart: reaction to fire, test according to EN ISO 11925-2 and EN ISO 9239-1 (classification: C_{fl}-s1)
- Test report from 2007-08-22 of the FZ Jülich: decontamination of surfaces according to DIN 25415-1; result: "sehr gut" (very good).
- Test report P 5598 from 2008-10-29 of the Kiwa Polymerinstitut according to the test program class OS 8 of the DafStb-Richtlinie.
- Test report 258089/2, of the EPH Dresden: hygienic evaluating of VOC-emissions of construction products in accordance to the AgBB-scheme.

■ **PRODUCT DATA**

	<u>GEHOPON-E600, Comp. A</u>	<u>GEHOPON-E600, Comp. B</u>
Product number	E600- (depending on colour)	EX-31C
Mixing ratio	4 parts by weight	1 part by weight
Colour	E600-7532, pebble grey approx. RAL 7032 Other colours available on request.	
Shelf life	At least 12 months in original cans at normal temperature.	

Theoretical consumption

DFT	Addition of quartz sand grain size 0.1 to 0.4 mm in mixing ratio	Consumption, quartz sand not considered, in kg/m ²
1 to 2 mm	1 : 0.5 (at 20 °C)	approx. 1.1 /mm
2 to 3 mm	up to 1 : 1 (at 20 °C)	approx. 0.9 /mm

■ **TECHNICAL DATA**

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

Parameter

Capacity	Value
Density (without filler)	1.35 g/ml
Compressive strength	70 to 90 N/mm ² (without filler)
	70 to 90 N/mm ² (with 50 % quartz sand)
	80 to 90 N/mm ² (with 100 % quartz sand)
Tensile strength under flexion	30 to 60 N/mm ²
Adhesive strength on concrete	≥ 2.5 N/mm ² (fracture in concrete)
Fire classification acc. To EN 13501-1	C _{fl} -S1

(All statements depending on type and quantity of supplements.)

Coating systems

Substrate	Concrete, cement screed	
Surface preparation	For best results: ball blasting	
Primer	GEHOPON-E175 or GEHOPON-E160	GEHOPON-E175 or GEHOPON-E160
Theoret. consumption:	0.3 to 0.5 kg/m ² or 0.4 to 0.6 kg/m ²	0.3 to 0.5 kg/m ² or 0.4 to 0.6 kg/m ²
Full-scale filler	GEHOPON-E600 plus 50 % by weight quartz sand of grain size 0.1 to 0.4 mm	GEHOPON-E600 plus 50 % by weight quartz sand of grain size 0.1 to 0.4 mm
Theoret. consumption (mixture):	0.4 to 1.0 kg/m ²	0.4 to 1.0 kg/m ²
Coating	GEHOPON-E600 plus 50 weight % quartz sand of grain size 0.1 to 0.4 mm	GEHOPON-E600 plus 80 weight % quartz sand of grain size 0.1 to 0.4 mm
Theoret. consumption (mixture):	1.65 kg/m ² per mm	1.8 kg/m ² per mm
Film thickness of top coating	1 to 2 mm	2 to 3 mm

Sanding between the individual working operations:

We recommend a sanding between the individual working operations only when the recommended maximal waiting time is exceeded. In these cases we recommend a light sanding with max. 1.0 kg/m² quartz sand of the grain size 0.3 to 0.8 mm.

The following sealants can be applied on coatings made of GEHOPON-E600:

- WIEREGEN-DW11 (coloured or transparent, flat)
- GEHOPON-EW12-Siegel (coloured or transparent, satin glossy)

■ INSTRUCTIONS FOR APPLICATION

Substrate

The substrate must be prepared workmanlike and according to the requirements of the system. It must be coated with a primer, if necessary a filler must be applied and the substrate must fulfil the following requirements:

- Concrete: min. C 20/25
- Cement screed: min. CT-C35-F5 (ZE 30)
- Adhesive strength: min. 1.5 N/mm²
- Conditions: clean, dry, dust-free and free of oil and grease

Surface preparation

Layers with insufficient load-carrying capacity, cement slurry and oil-bearing contaminations have to be removed mechanically, e.g. by ball blasting or by using a rotary hoe.

Processing conditions

Air and surface temperature

Min. 10 °C, max. 25 °C.

Optimal results will be achieved at temperatures of 15 to 25 °C.

Attention:

If the air or surface temperature rises during application on a porous substrate, bubbles can occur. For this reason, the coating should be applied at a constant or falling temperature on a non-porous substrate.

Relative humidity

Max. 80 % relative humidity.
Do not apply under dew point conditions.

The influence of moisture during the curing can result in discolouring or hazing.

Comments on processing

Mixing

Mix GEHOPON-E600 thoroughly with the packed curing agent using a mechanical mixer until a homogenous and unclouded mixture is produced. Then pour into another container. After repeated mixture the material is ready for use.

Methods of application GEHOPON-E600 is usually applied with a trowel or toothed scraper. The film thickness is controlled via consumption. To improve spreading and to remove trapped air bubbles we recommend the use of spiked rollers.

Coating of vertical or sloping concrete surfaces:
GEHOPON-E600, plus up to 5 % of standardising agent RS 225.

Cleaning of equipment With thinner V-538
Cured material must be removed mechanically.

Pot life 30 to 90 minutes depending on temperature.

Waiting time between working operations

		+ 10 °C	+ 20 °C	+ 25 °C
Full-scale filler on primer	min.	24 h	12 h	6 h
	max.	2 days	36 h	24 h
Coating on full-scale filler	min.	24 h	12 h	6 h
	max.	5 days	4 days	3 days

Times relevant only if no sanding was made

Drying and curing time Foot traffic after 12 to 16 hours.

Full resistance to mechanical and chemical stresses after 7 to 14 days depending on temperature.

■ **CE LABELLING**

CE Labelling in accordance with EN 13813

CE Labelling in accordance with EN 1504-2

EC Declaration of conformity in accordance with EN 13813

EC Declaration of conformity in accordance with EN 1504-2

■ **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.