

■ **FIELDS OF APPLICATION**

GEHOPON-EW12-Siegel is used as a sealant on concrete, cement, anhydrite and magnesia screed surfaces and on mastic asphalt in warehouses, industrial plants, workshops, garages, nuclear plants etc.

Particularly interesting is the use of the material in buildings where the usual solvent-based sealants cannot be used because of possible danger or nuisance.

Due to its water vapour diffusion capacity, GEHOPON-EW12-Siegel can be applied shortly after the completion of the concrete and cement screed surfaces (after 4 days or later). This increases the quality of the concrete and screed by retarding the evaporation of water and it protects the substrate against abrasion and penetration of oil and similar contaminants during the construction phase.

■ **PRODUCT PROPERTIES**

GEHOPON-EW12-Siegel is a two-pack, coloured sealant and is based on a water-borne epoxy resin. Therefore the material is low in odour, non-inflammable and not explosive and can excellently be decontaminated after curing.

**Capacities**

Cured layers of GEHOPON-EW12-Siegel are resistant to petrol and oil as well as to many chemicals.

The resistance, particularly in the case of mineral substrates with rough surfaces, also depends substantially on a good coverage respectively the layer thickness of the sealant applied. In case of heavier stresses self-levelling coatings are recommended.

**Test certificates**

**Test report** of the Research Centre Jülich on the decontamination capacity according to DIN 25415, Part 1, Result: "very good".

**Test report 258089/1**, of the EPH Dresden: hygienic evaluating of VOC-emissions of construction products in accordance to the AgBB-scheme.

■ **TECHNICAL DATA**

GEHOPON-EW12-Siegel, Comp. A

GEHOPON-EW, Comp. B

**Product number**

EW12-S.... (depending on colour)  
EW12-G.... (depending on colour)

EZ-40

**Mixing ratio**

5 parts by weight

1 part by weight

- Standard colour** EW12-**S**7532 pebble grey,  
approx. RAL 7032 satin glossy
- EW12-**G**7532 pebble grey,  
RAL 7032 glossy
- Other colours available on request
- Shelf life** At least 12 months in original cans at normal temperature
- Consumption** 0.150 to 0.200 kg/m<sup>2</sup> per working operation, depending on the  
absorbency and roughness of the substrate.  
Two to three working operations result in a DFT of 100 to 150 µm.
- Suitable thinner** Water (at least drinking water quality)

■ 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 WB	140 g/l	< 140 g/l

**Parameter**

Capacity	Value
Adhesive strength on concrete	≥ 2.5 N/mm <sup>2</sup> (fracture in concrete)
Abrasion tested with Taber Abraser (DIN 53754) CS 10, 1000 rotations, 1000 g	80 to 90 mg
Water diffusion coefficient µ Test report P1113 Polymer Institut	µ = 110 000 (s <sub>d</sub> : approx. 11 m at 100 µm)

**Coating systems**

Substrate	Concrete, cement screed, old coatings	
<b>Surface preparation</b>	grinding or shot blasting (depending on substrate)	
<b>Primer</b>	GEHOPON-EW12-Siegel with 5 to 10 % water	GEHOPON-EW12-Siegel with 5 to 10 % water
Consumption:	approx. 0.2 kg/m <sup>2</sup>	approx. 0.2 kg/m <sup>2</sup>
<b>Sealant</b>	GEHOPON-EW12-Siegel	GEHOPON-EW12-Siegel plus 20% by weight of quartz meal to 0.2 mm
Consumption:	approx. 0.2 kg/m <sup>2</sup>	approx. 0.2 kg/m <sup>2</sup>

GEHOPON-EW12-Siegel can also be applied as an additional finish to epoxy resin coatings such as GEHOPON-E25 or GEHOPON-E600.

■ **INSTRUCTIONS  
FOR APPLICATION**

**Surface preparation**

**Substrate** The substrate must be dry, free of loose and sand-releasing parts, dust, cement slurry and other contaminants.

The substrate must have an adequate load-carrying capacity (at least B 25 or mind. CT-C35-F5 (ZE 30)).

The adhesive strength should be at least 1.5 N/mm<sup>2</sup>.

Magnesia and anhydrite screed surfaces must be roughened and dedusted.

**Substrate preparation** Layers with insufficient load-carrying capacity, cement slurry and oil-bearing contaminants must be removed mechanically, e.g. by ball blasting or by using a rotary hoe.

Highly absorbent substrates must be moistened with water.

Before application on old coatings, existing layers of different origin must be removed. We recommend checking suitability on test surfaces before application.

**Processing conditions**

**Air and surface  
temperature** Minimum 10 °C, maximum 25 °C

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

**Relative humidity** Max. 80 % relative humidity.

Do not apply under dew point conditions.

**Caution:**

In insufficiently ventilated rooms, the relative humidity is increased by the evaporation of water from GEHOPON-EW12-Siegel. In such cases, supplementary ventilation and maybe heating is necessary otherwise streaks or differences in the degree of gloss can occur.

**Comments on processing**

**Mixing** GEHOPON-EW12-Siegel is mixed with the enclosed quantity of the curing agent EZ-40 using a mechanical stirrer, until a homogeneous mixture is produced. Then pour into another container and wait for approx. 10 minutes (pre-reaction time). After repeated stirring the material is ready for use.

An addition of water in order to adjust viscosity can be done during the second stirring process.

**Methods of application** Roller coating

If possible the mixture in all containers should be applied after the same pre-reaction time. Larger differences in the pre-reaction time can result in small colour differences of the sealant.

**Cleaning of equipment** With water immediately after use. If the coating works go on for a longer time, clean the equipment from time to time with water.

Cured material must be removed mechanically.

**Pot life** At 20 °C max. 1 hour 45 minutes. (Higher temperatures result in shorter pot life)

Caution:

Do not use the material after this period even if the mixture shows no perceptible change. After this period, the reaction capacity of GEHOPON-EW12-Siegel is no longer given.

**Waiting time between working operations** 16 hours related to a temperature of 20 °C and a relative humidity of 60 %.

**Drying and curing times** Tack free after 4 hours  
Foot traffic after 16 hours

Full mechanical and/or chemical load-carrying capacity after 7 days

(All values related to a temperature of 20 °C and a relative humidity of 60 %)

■ **SAFETY MEASURES**

GEHOPON-EW12-Siegel 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.

When application works are executed under bad ventilating circumstances (closed rooms, mines etc.) it is necessary to provide for good airing in order to remove the water evaporating from GEHOPON-EW12-Siegel.

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](http://www.geholit-wiemer.de).

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