

GEHODUR-S3

GEHODUR-S3-Zink, 1C-Si-Zinc rich Primer
GEHODUR-S3-Eisenglimmer, 1C-Si Topcoat
GEHODUR-S3-Aluminium, 1C-Si Topcoat

■ FIELDS OF APPLICATION

For protective coatings which are both resistant to high temperatures and natural weathering, e.g. for metal chimneys (outer side), rotary tubular ovens, steam release hoods, superheated steam pipes and industrial ovens.

The use of GEHODUR-S3 in the application range of the Directive 2004/42/EG "Decopaint-Directive" is not allowed (e.g. coating of buildings or building parts).

■ PRODUCT PROPERTIES

GEHODUR-S3-Zink, GEHODUR-S3-Eisenglimmer and GEHODUR-S3-Aluminium are based on special silicone resins and metal pigments with their specific properties.

Coating systems using GEHODUR-S3-Zink with GEHODUR-S3-Eisenglimmer or GEHODUR-S3-Aluminium withstand permanent temperatures of up to 500 °C without being damaged, and they are also resistant to natural weathering.

Coating systems consisting of only two coatings of GEHODUR-S3-Eisenglimmer or GEHODUR-S3-Aluminium withstand permanent temperatures of up to 600 °C without being damaged, but are less effective in their anticorrosive properties than the system described above.

Coating systems of GEHODUR-S3-Zink with GEHODUR-S3-Eisenglimmer are better suited in the case of extreme temperature changes than those with GEHODUR-S3-Aluminium as top-coating.

The optimal degree of crosslinking as well as the best weather resistance is only achieved when the materials are exposed to higher temperatures, e.g. one hour at 230 °C or 24 hours at a minimum of 160 °C.

The coating system may also be used for objects where higher temperatures arise only after some time, fulfilling the stoving conditions and allowing optimal crosslinking of the coating film. However, it must be noted that non-stoved coatings are thermoplastic in the temperature range of 40 to 160 °C. This point is particularly important when different temperatures occur on different spots of the object to be coated.

■ **PRODUCT DATA**

	<u>GEHODUR-S3-Zinc</u>	<u>GEHODUR-S3-Eisenglimmer</u>	<u>GEHODUR-S3-Aluminium</u>
Product number and colour	S3-790 Grey red	S3-E9200 black metallic or S3-E7600 Grey metallic	S3-F7700 Bright silver
Form of delivery	Ready for spray application		
Shelf life	In original cans at normal temperature		
	At least 3 months	At least 6 months	At least 6 months
Suitable thinner	V-89		
Theoretical consumption	0.157 kg/m ² = 6.4 m ² /kg = 15.1 m ² /l	0.105 kg/m ² = 9.5 m ² /kg = 14.3 m ² /l	0.084 kg/m ² = 11.9 m ² /kg = 13.1 m ² /l
Related to a DFT of	30 µm	30 µm	20 µm
Coating systems	The following coating systems are normally in use:		

Nominal dry film thicknesses (NDFT)

System	1	2	3	4	5
GEHODUR-S3-Zinc	1 x 30 µm	1 x 30 µm	1 x 30 µm	-	-
GEHODUR-S3-MIO	2 x 30 µm	-	1 x 30 µm	2 x 30 µm	-
GEHODUR-S3-Aluminium	-	2 x 20 µm	1 x 20 µm	-	2 x 30 µm
Total NDFT	90 µm	70 µm	80 µm	60 µm	60 µm
Temperature resistance	500 °C	500 °C	500 °C	600 °C	600 °C

The application of a higher total dry film thickness is not recommended as stresses may occur in the case of widely varying temperatures.

■ **INSTRUCTIONS FOR APPLICATION**

Surface preparation Blast-cleaning in accordance with EN ISO 12944-4, surface preparation grade Sa 3.

Air and surface temperature Optimal results at temperatures of 15 to 25 °C, not below 5 °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

Application methods

Means of application/parameters	Addition of thinner V-89
Spraying	For spraying use either undiluted or with only a small amount of thinner V-89

These values are related to a temperature of approximately 20 °C and a relative humidity of 60 %.

GEHODUR-S3 is preferably applied by spraying, as in case of brush application the non-stoved coatings could be damaged. Apart from that it is difficult to achieve visually uniform surfaces by means of brush application.

Attention: If other coating materials are used in the same room at the same time, GEHODUR-S3 materials may cause coating defects.

Drying and curing times

Related to a temperature of 20 °C at a DFT of 30 µm.

Over-coating with
GEHODUR-S3

After 8 to 16 hours at 15 to 25 °C

Best film formation only after stoving e.g. for 1 hour at 230 °C or for min. 24 hours at 160 °C (for instance at normal object temperature).

■ **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.