LACK– UND KUNSTSTOFF– CHEMIE GMBH

TECHNICAL INFORMATION

GEHODUR-S10

**1C-Si/AY Topcoat
for heat and weather resistant
corrosion protection coatings**

■ FIELDS OF APPLICATION

For high temperature and weather resistant corrosion protection coatings, on ferritic and austenitic steel, e.g. metal chimneys (outer side), steam release hoods, superheated steam pipes, industrial ovens and the like.

The use of GEHODUR-S10 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-S10 is based on a combination of special acrylic and silicone resins.

Temperature resistance (permanent, dry heat):

- GEHODUR-S10 (aluminium and MIO): up to +200 °C
- GEHODUR-S10 (RAL-colours): up to +170 °C

■ PRODUCT DATA

Product number and colour

S10-S7700	aluminium / silver
S10-E7901	MIO-colour, grey approx. DB 701
S10-S….	(RAL-colours)

(Other colours on request)

Shelf life At least 4 months in original cans at normal temperature

Suitable thinner V- 89

Theoretical parameters

GEHODUR-S10-Aluminium, S10-S7700

Density (g/mL)	Solid content (weight %)	VOC-content (weight %)	VOC-content per 10 µm DFT* (g/m²)	Solid content by volume (%)	Solid content by volume (mL/kg)
1.0	44	56	17.0	33	310
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m²)		Spreading rate (m²/kg)	
25	75	0.080		12.4	

GEHODUR-S10-Eisenglimmer, S10-E7901

Density (g/mL)	Solid content (weight %)	VOC-content (weight %)	VOC-content per 10 µm DFT* (g/m²)	Solid content by volume (%)	Solid content by volume (mL/kg)
1.1	46.5	53.5	17.4	33.9	315
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m²)		Spreading rate (m²/kg)	
25	74	0.079		12.6	

GEHODUR-S10

Theoretical parameters

GEHODUR-S10, S10-S7035

Density (g/mL)	Solid content (weight %)	VOC-content (weight %)	VOC-content per 10 µm DFT* (g/m²)	Solid content by volume (%)	Solid content by volume (mL/kg)
1.1	49	51	15.6	36	325
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m²)		Spreading rate (m²/kg)	
25	69	0.077		13.0	

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

Coating systems

Substrate	Steel	
Surface preparation	Blast-cleaning in preparation grade Sa 2 ½ in accordance with EN ISO 12944-4	
	Product	**NDFT (µm)**
Primer coating	GEHOPON-E87-Zink or GEHODUR-F35-Zink or GEHODUR-F1-Primer	80 80 2 x 40
Top coating	GEHODUR-S10	2 x 25

Substrate	Austenitic Steel	
Surface preparation	Sweep-blasting in accordance with EN ISO 12944-4	
	Product	**NDFT (µm)**
Top coating	GEHODUR-S10	2 x 25

The total dry film thickness of GEHODUR-S10 should not exceed 100 µm.
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.

Other surfaces:
Essential precondition for good adhesion of GEHODUR-S10 on austenitic steel are dry and clean surfaces which have been cleaned and roughened by sweep-blasting (see EN ISO 12944-4).

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	recommended nominal dry film thickness per working operation	Addition of thinner V-89
Airless spraying Nozzle diameter: 0.28 to 0.33 mm Material pressure: approx. 150 to 170 bar	25 µm	up to 3 %
High pressure/air spraying Nozzle diameter 1.5 to 2.0 mm Pressure: approx. 4 bar	25 µm	8 to 12 %
Roller coating / brush application	25 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.

Note: GEHODUR-S10 is preferably applied by spraying.

Drying and curing times related to a DFT of 25 µm, at a temperature of 20 °C and a relative humidity of 50 %

Dry to touch: After 30 to 60 minutes
Ready for over-coating: After approx. 16 hours

■ 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.