

**One-component zinc-rich primer coating for steel surfaces
based on ethyl silicate resin
BASF specification: 3343 417**

■ **FIELDS OF APPLICATION**

High-grade zinc-rich primer for protective coatings of shot-blasted steel surfaces, e.g. for steel structures, ship building, for machines and equipment, containers and the like.

GEHODUR-F330-Zinc-S1 can be used as protective coating system without subsequent top coatings or as protective primer coating under suitable top coatings.

The use of GEHODUR-F330-Zinc-S1 in the application range of the ChemVOCFarbV (Decopaint-Directive) is not allowed (e.g. coating of buildings or parts of buildings).

■ **PRODUCT PROPERTIES**

GEHODUR-F330-Zinc-S1 provides inorganic coating films with very high resistance to abrasion, excellent corrosion protection and temperature resistance up to 450 °C.

GEHODUR-F330-Zinc-S1 is resistant to water, mineral oils, fuels, aliphatic hydrocarbons as well as several other solvents. In case of contact with salt water or aggressive atmospheres we recommend the application of suitable top coatings.

GEHODUR-F330-Zinc-S1 can be coated over with a multitude of different one- or two-component top coatings. However, as with all zinc-rich primers, the top coats must be „compatible“ to zinc.

Interesting information about zinc-rich primers can be found in „Merkblatt Nr. 4 (Information leaflet No. 4)“ with the title „Zinkstaub-Anstrichmittel und Anstriche auf Zinkstaub-Grundanstrichen“ („Zinc-rich paints and paintings on zinc-rich primer coats“) published by the Bundesausschuss Farbe und Sachwertschutz (Federal Committee for Paint and Protecting Agents), Frankfurt/Main, Börsenstr. 1.

■ **PRODUCT DATA**

GEHODUR-F330-Zinc-S1

Product number F330-791

Colour Grey

Standard packaging 30 kg gross weight

Shelf life At least 6 months in original cans - store dry and cool

Suitable thinner V-89

Theoretical consumption 0.358 kg/m² = 2.6 m²/kg at a dry film thickness of 80 µm

Coating systems When it is not intended or necessary to apply top coats, one or two layers of GEHODUR-F330-Zinc-S1 should be applied, with a combined nominal dry film thickness of approximately 100 µm.

When top coats are to be applied, usually one layer of GEHODUR-F330-Zinc-S1 will be applied, with a nominal dry film thickness of 60 to 80 µm. A dry film thickness of more than 150 µm must be avoided, especially in single layer coating systems.

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 Blast-cleaning in accordance with DIN EN ISO 12944-4, surface preparation grade Sa 2 ½.
G-grade medium roughness in accordance with DIN EN ISO 8503-1.

Air and surface temperature -10 °C to max. +40 °C

Relative humidity Optimal results at 60 to 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 DIN EN ISO 12944-7)

Comments on processing

Application methods

Means of application/parameters	Addition of thinner V-89
<u>Brush application and roller coating</u>	GEHODUR-F330-Zinc-S1 can be applied by brush or roller coating. However, we recommend these methods only for small areas or for repair work.
<u>Airless spraying:</u> Nozzle diameter: 0.33 to 0.58 mm Material pressure: 150 to 200 bar Translation ratio: 1 : 30 with special pumps: 1 : 16	up to 5 %
<u>High pressure/air spraying (pressure vessel)</u> Vessel pressure : 0.8 to 1.2 bar Application pressure: 2.7 to 3.5 bar Nozzle diameter 1.5 mm	5 to 10 %

Cleaning of equipment Immediately after use with thinner V-89

Drying and curing times

Note:

GEHODUR-F330-Zinc-S1 requires moisture for curing. Therefore a relative air humidity of 60 to 80 % is desirable. Higher air humidity or even dew, mist or rain are not detrimental already half an hour after application. The curing process is considerably prolonged at an air humidity of under 50 %. Coats which are already dry to touch can be sprayed with water to accelerate the curing. In the case of extremely low air humidity this process must be repeated several times. Inside buildings or containers, curing can be accelerated by moist fresh air from outside.

Dry to touch:	After 20 to 30 minutes
Resistant against rain:	After 30 to 60 minutes
Tack free:	After approx. 2 hours
Over-coating with GEHODUR-F330-Zinc-S1:	After 2 to 3 hours
Over-coating with other top coatings:	After approx. 24 hours

(Related to a dry film thickness of 50 to 80 µm, at a relative humidity of 60 % and a temperature of 20 °C)

Important note: Before application of top coats, GEHODUR-F330-Zinc-S1 must be cured through totally, since the curing process of GEHODUR-F330-Zinc-S1 by air humidity is to a large extent prevented by top coats.

■ **SAFETY MEASURES**

In case of coating in enclosed rooms, pits etc good ventilation and breathing equipment shall be provided. GEHODUR-F330-Zinc-S1 contains solvents.

The relevant data concerning safety measures, e.g. declarations according to regulations for dangerous goods and VbF can be found in the material safety data sheet of this product.

Hazard notes and safety recommendations can be found on the labels of the containers. Furthermore the relevant regulations must be observed, e.g. the rules and regulations for the prevention of occupational accidents of the German Berufsgenossenschaften.

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.
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