1K-ESI-Zinkstaubprimer feuchtigkeitshärtend, High-Zinc Technical data sheet

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Intended use

Inorganic ethyl silicate zinc-rich coating according to DIN EN ISO 12944. Thanks to its extreme resistance to salt spray and to condensation water, the product can be used either as anti-corrosion coating without subsequent topcoat or as anti-corrosion primer with suitable top coating. The product can be used as welding primer provided that the dry film thickness is less than 20 μm .

Processing instructions

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Mixing ratio hardener

by weight (lacquer : hardener) by volume (lacquer : hardener)







Hardener



Pot life



Thinner

Mipa Verdünnung ESI



Processing viscosity gravity spray gun

18 - 22 s 4 mm DIN

Airmix/Airless

20 - 25 s 4 mm DIN



Application mode application mode	hardener	pressure (bar)	nozzle (mm)	spray passes	dilution
gravity spray gun / HVLP		2,0 - 3,0	1,5	-	3 - 10 %
Airmix / Airless compound pressure		1,0 - 2,0 120 - 250	0,33 - 0,58	-	0 - 5 %
by brush, roller (only recommended for small areas)	-	_		-	0 %

Drying time						
hardener	object temperature	dust dry	set to touch	ready for assembly	sandable	recoatable
_	20°C (rel. humidity)	5 - 15 min	-			with itself after 2 - 3 h, otherwise after 24 h
-	60 °C		-			with itself after 30 min

Recoatable after 24 hours. Rain-resistant after 30 minutes at 20 °C. Fully cured after 3 - 4 days.

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Note _

Characteristics: binder base: ethyl silicate

solids content (% by weight): ~ 88
solids content (% by volume): ~ 59
delivery viscosity DIN 53211 4 mm (in s): 20 - 25
density DIN EN ISO 2811 (kg/l): ~ 2,9
gloss level ISO 2813 at 60° (GU): < 10 matt

Properties: short drying time

high filling power

salt spray test, 70 µm coating thickness: more than 1000 hours

condensation water test, 70 µm coating thickness: more that 1000 hours

easy to apply

sliding friction coefficient μ according to DIN 51131 (friction coefficient) = 0,5

heat-resistant up to 450 °C adhesion on blastered steel

Theoretical spreading rate: $\sim 24.7 \text{ m}^2/\text{kg}$ for 10 µm dry film thickness

 $\sim 60,2$ m²/l for 10 μ m dry film thickness

Storage: For at least 1 year in the unopened original container. Optimum storage conditions

between + 5 °C and + 25 °C, avoid direct sunlight. Other storage conditions may lead

to undesirable properties of the material.

VOC: < 360 g/l.

Processing conditions: 1K-ESI-Zinkstaubprimer requires humidity for curing. Perfect processing conditions are

between 50 - 98 % relative humidity. At a humidity of less than 50 % the curing slows down considerably. In these cases provide air humidification or spray water on the

surface only when the surface is dust dry.

Application temperature - 5 up to + 50 $^{\circ}$ C. During the application, the surface

temperature of the parts to be coated must be kept at least 3 °C above the dew point

of air (DIN EN ISO 12944-7).

Substrate preparation: Remove oil, grease, rust, mill scale, rolling skins, as well as other substances

impairing the function of the coating!

Attention: A direct adhesion cannot be taken as granted due to most different kinds of metals, alloys, metallic and conversion coatings and so on. The adhesion

must therefore be tested on the original metal substrate.

steel:

- blast to cleaning degree Sa 2½ as per DIN EN ISO 12944-4, roughness degree: medium (G) as per DIN EN ISO 8503-1

Proposed coating structure: 3-coat-system (example: corrosivity category C4 High according to DIN EN ISO

12944):

steel:

priming coat: 1K-ESI-Zinkstaubprimer with 60 μm dry film thickness

intermediate coat: EP 100-20 with 80 µm dry film thickness finishing coat: PU 240-XX with 60 µm dry film thickness

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Special notes:

To get more information about recommended coating structures according to corrosivity categories as per DIN EN ISO 12944 please contact us or have a look at the brochure "Mipa Corrosion protection"!

For professional use only.

Attention: Before applying any further top coating ensure that the applied product is completely cured otherwise it is largely cut off from the humidity that is essential for curing.

Avoid coat thicknesses of more than 80 μm per layer since otherwise there is a risk of cracking.

Cleaning of tools:

Clean tools immediately after use with Mipa Nitroverdünnung.