

Technical Data Sheet

Description:

Priming epoxy high-solid paint (ZnR)

Usage:

ZG 18 is a two-component, fast-drying epoxy primer containing 80% Zn. The paint is designed to protect steel surfaces exposed to extremely corrosive environments (category C5 according to ISO 12944). Suitable for coating waterworks, steel bridge structures, stables, dairies, laundries, canneries, tanks, bathtubs, underground storage tanks, reservoirs, and pipelines. It has excellent corrosion resistance, excellent adhesion, and chemical and mechanical resistance. It is used exclusively as the first coat on surfaces blasted to at least Sa 2½ cleanliness according to ISO 8501-1. Zinc dust forms cathodic protection of the substrate, which significantly extends the life of the entire coating system. It is applied by high-pressure airless spraying, brush, or roller. Subsequent coats of ZG 17, ZG 19, ZE 53, PE 33, PE 73, and PE 84 can be sprayed on after just 30 minutes. To achieve greater hardness, faster drying, and a smoother surface, or when applying with a brush/roller, we recommend applying the top coat after 16 hours.

Substrate:

blasted steel

Colours:

VIT 0113

Specific gravity: (ČSN EN ISO 2811-1)

2,47 ± 0,2 g/cm³

Solids: (ČSN EN ISO 3251)

by weight 84 ± 2 %

by volume 51 ± 2 %

Mixing ratio:

by weight 12 : 1 hardener ZH 93

by volume 5 : 1 hardener ZH 93

Theoretical spreading rate: (ČSN EN ISO 23811)

undiluted paint			
40 µm DFT	5,1 m ² /kg	12,7 m ² /liter	194,8 g/m ²
80 µm DFT	2,6 m ² /kg	6,4 m ² /liter	389,7 g/m ²

To reach 40 µm DFT apply 78 µm undiluted paint. Practical spreading rate depends on application method and conditions, shape and roughness of the surface.

Drying: (ČSN 673052)

120 µm WFT, temperature 23 ± 2°C, relative humidity 50 ± 5%, mixed and diluted - outflow time 60s, ISO outflow cup 6 mm	surface dry (grade 1)	to touch (grade 3)	to manipulation (grade 4)
	15 minutes	30 minutes	2 hours

Drying and recoatability time strongly depend on wet film thickness, temperature, humidity, ventilation and paint colour. Fully load and measure the coated film after 7 days, laboratory testing after 3 weeks of drying under the above conditions.

Technical Data Sheet

Pot life: (ČSN EN ISO 9514)

2 h., temperature $23 \pm 2^\circ\text{C}$, mixed and diluted - outflow time 60s, ISO outflow cup 6 mm

Pot life strongly depends on the paint temperature. At temperatures of $30-40^\circ\text{C}$ it can be half, at temperatures of $5-10^\circ\text{C}$ it can be several times longer.

Gloss: (ČSN ISO 2813)

Matt 2 GU, angle-wise 60° , mixed and diluted - outflow time 60s, ISO outflow cup 6 mm

Supply viscosity:

Thixotropic liquid unmeasurable by ISO outflow cup.

Recommended dilution: (ČSN 673032)

	airless	brush/roller
thinner	ZT 03	ZT 03
by weight	0 - 2 %	0 - 3 %
by volume	0 - 6 %	0 - 9 %

Sagging: (ČSN EN ISO 16862)

temperature $23 \pm 2^\circ\text{C}$, relative humidity $50 \pm 5\%$	
mixed and diluted - outflow time 60s, ISO outflow cup 6 mm	no sagging 300 μm WFT

Application conditions:

The surface must be dry. The air, surface and paint temperature cannot decrease below $+5^\circ\text{C}$ during application and drying. Relative humidity cannot exceed 80%. The surface temperature must be at least 3°C above the dew point.

Surface preparation:

Remove oil, grease, salt and other contamination from the surface with a suitable detergent according to ČSN EN ISO 12944-4.

Steel surfaces: Abrasive blast to degree of cleanliness Sa 2½ according to ČSN EN ISO 8501-1. A lower level of surface cleanliness is not for this paint is permissible.

Application method:

By airless spraying, spraying or brush/roller.. For airless spraying use the nozzle orifice of $\varnothing 0.011'' - 0.021''$, nozzle pressure: 120 - 180 bar, adjust the angle of application to the shape of the surface. For spraying use the nozzle orifice of 1.5 - 2 mm, nozzle pressure: 3 - 4 bar. For application by brush/roller select appropriate equipment according to the paint type and viscosity. Climatic conditions for application: the substrate temperature must be a minimum of 5°C , a maximum of 40°C and a minimum of 3°C above the active dew point. The coating material should have a minimum temperature of 10°C . The relative humidity of the air should not exceed 85%, there must be no condensation of water vapor on the surface of the steel structure, and at least 30%.

Storage:

in the original unopened packaging at temperatures between $+5^\circ\text{C}$ and $+25^\circ\text{C}$



ZG 18

Technical Data Sheet

Packaging in kg:

24

Notes:

DFT - dry film thickness
WFT - wet film thickness

MS - medium dry matter
HS - high dry matter

GU - Gloss Unit
KU - Krebs unit of viscosity

All information given in this technical data sheet are based on our best knowledge, laboratory test results and practical experience to the date specified below. According to the fact that the conditions of the product's use are out of our control, we can only guarantee the product quality itself. As a producer we cannot be responsible for damage arising from the use of the products without following above recommended instructions or for improper purposes. We reserve the right to change above specified information without prior notice. Always request the actual version of the product data sheet. This technical data sheet replaces all previously released. The validity of the data provided here will be terminated automatically after five years.

