



ZE 53

Technical Data Sheet

Description:

Self-priming epoxy paint 2in1

Usage:

Fast-drying two component primer and top-coat (2 in 1) for heavy corrosive environment. Suitable for INTERIOR coatings of steel constructions, stables, dairies, laundries, canning plants, conveyors, production lines, machinery and equipment, underground storage facilities, pipelines and mineral substrates. It has excellent adhesion, chemical and mechanical resistance. It is resistant against petroleum substances, oils and grease, increased humidity, permanent submersion, dilute acid and alkali solutions. For the highest performance use airless spraying. For steel surfaces use an appropriate priming coat. ZE 53 can be applied directly to the surface without primer. ZE 53 can be applied as a top coat on primers ZG 11, ZG 13, ZG 16, ZG 17, ZG 19, too.

Substrate:

Steel, new and old zinc, stainless steel, mineral substrates

Colours:

RAL, VIT

Specific gravity: (ČSN EN ISO 2811-1)

1,40 g/cm³

Solids: (ČSN EN ISO 3251)

by weight 78 %

by volume 64 %

Mixing ratio:

by weight 8 : 1 hardener ZH 93 7 : 1 hardener ZH 95

by volume 6 : 1 hardener ZH 93 4 : 1 hardener ZH 95

Theoretical spreading rate: (ČSN EN ISO 23811)

undiluted paint			
40 µm DFT	11,5 m ² /kg	16,1 m ² /liter	87,0 g/m ²
80 µm DFT	5,8 m ² /kg	8,1 m ² /liter	174,0 g/m ²

To reach 40 µm DFT apply 62 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 to a viscosity of 60s, ISO outflow cup 6mm	surface dry (grade 1)	to touch (grade 3)	to manipulation (grade 4)
	30 minutes	60 minutes	4 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.



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Pot life: (ČSN EN ISO 9514)

3 h., temperature $23 \pm 2^\circ\text{C}$, mixed and diluted to a viscosity of 60s, ISO outflow cup 6mm

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

Gloss: (ČSN ISO 2813)

Semi-matt 30 GU, angle-wise 60° , mixed and diluted to a viscosity of 60s, ISO outflow cup 6mm

Supply viscosity:

Thixotropic liquid unmeasurable by ISO outflow cup

Recommended dilution: (ČSN 673032)

	airless	brush/roller
thinner	ZT 03	ZT 03
by weight	4 %	8 %
by volume	7 %	13 %

Sagging: (ČSN EN ISO 16862)

temperature $23 \pm 2^\circ\text{C}$, relative humidity $50 \pm 5\%$	
mixed and diluted to a viscosity of 60s, ISO outflow cup 6mm	no sagging 225 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. Use thinner or the highly effective ecological cleaner CL 07.

Steel surfaces: Abrasive blast-cleaning to Sa $2\frac{1}{2}$, alternatively manual or mechanical cleaning to min. St 3 corresponding to ČSN EN ISO 8501-1.

Stainless steel surfaces: For reaching the required roughness use mechanical or manual sanding. Clean the surface with a ecological cleaner CL 07.

Galvanized surfaces: For reaching the required roughness use the sweeping method, e.g. using silica sand, alternatively mechanical sanding. At least clean the surface with a suitable detergent. It is recommended to apply a diluted extra first coat on hot galvanized surfaces. While adhering to this procedure, it is not necessary to use a primer.

Aluminum surfaces: Paint is not intended for direct application to this type of surface, it is necessary to use primer ZG 13.

Previously painted surfaces: If the type of old paint is not known, first check the compatibility test. Clean up the oil and grease with thinner or cleaner CL 07, roughen the surface with a grinder. Apply mixed and diluted paint in small area. If the surface is not cracked within 30 minutes, then the coating is completely cured and adherent, the paint can be used for renovation. Treat the corroded places with the recommended primary paint. Observe the compatibility of old and new paints if you are not check the compatibility test.



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Mineral surfaces: Remove oil, grease, salt and other contamination from the surface with a suitable detergent, sanding or blast cleaning as needed. Remove the residual grit by brushing or vacuum cleaning. Use RK 975 STOPPER for touch-up repairs, leveling and smoothing of the surface. In case of highly strained systems it is necessary to test the solidity of the mineral surface. Observe the compatibility of preceding and subsequent paints when renovating previously painted surfaces.

Application method:

Spray guns, 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.

Storage:

in the original unopened packaging at temperatures between +5°C and +25°C

Packaging in kg:

0,8; 3,2; 8; 24

Packaging of base 0100 in kg:

0,78; 3,14; 7,84; 23,52

Packaging of base 0000 in kg:

0,64; 2,56; 6,4; 19,2

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.

