

ZFES[®]-MO

ethylsilicate zinc-rich shop-primer
(interoperational protection)
(TU 20.30.12-039-12288779-2017)



Description

Double-packed ethyl silicate zinc-rich shop-primer consisting of a base – zinc dust paste and binding agent.

Recommended use

Anticorrosive protection of base metals surface, parts and assembly units for the storage period between the operations of manufacture and installation in conditions of macro-climatic regions with moderate, moderately cold and cold climates, all types of atmosphere and placement categories according to GOST 15150-69.

It is also used for the protection and sealing of threaded pipe joints.

Steel articles and units coated with ZFES-MO can experience welding, cutting. A single-layer coating does not affect the quality of the weld. The primer is suitable for application on automated painting lines.

The service lifetime of the coating at a thickness of 15 to 25 μm is up to one year.

The primer can be covered with the following materials:

- polyurethane: compositions ZINOTAN (TU 2312-017-12288779-2003), ALUMOTAN (TU 2312-018-12288779-99), FERROTAN (TU 20.30.12-036-12288779-2018), POLYTON-UR enamel (TU 2312-029-12288779-2002);

- epoxy: ZINEP primer (TU 20.30.12-022-12288779-2018), ISOLEP-mio enamel (TU 2312-050-12288779-2005), ISOLEP-mastic (TU 20.30.12-065-12288779-2017) and ISOLEP-hydro (TU 20.30.12-108-12288779-2017) primer-enamels, with other paint and lacquer materials – as agreed with the VMP.

Certificates, approvals

Approved by testing centers Lacquer Coating Research Institute, Khotkovo town

Technical data

	Coating
Color of coating	Homogeneous, matte, smooth gray, the shade is not standardized
Thickness of one layer, μm	15-25
Adhesion	1 grade, not more than
Heat resistance in the open air	150 $^{\circ}\text{C}$
	Composition
Density, g/cm^3	1.85-2.05
Viscosity	Thixotropic
Non-volatile matters, %	65-72
Pot life after mixing at temperature $(20\pm 2)^{\circ}\text{C}$, h	8, not less than
Drying time to 3 degree (GOST 19007-73) at temperature $(20\pm 2)^{\circ}\text{C}$ and relative air humidity $(65\pm 5)\%$, min	20, not more than
Theoretical spreading rate of one-layer coating, g/m^2	90-150

Surface preparation

- to degrease metal surface to 1 grade according to GOST 9.402;
- to do abrasive blast cleaning to 2 grade according to GOST 9.402 (Sa 2 1/2 or Sa 3 according to ISO 8501-1) with roughening. Recommended surface profile is acute-angled (grit), surface roughening 25-60 μm (thin according to ISO 8503-1, G comparator, segment 1-2);

▪ to remove abrasive and dust.

Preparing the ZFES-MO coating before applying the coating enamels:

- to degrease if necessary with detergent MS-01 (TU 2381-095-12288779) or other aqueous solutions of detergents (pH of solutions should be in the range of 6 to 8), slight degreasing (without grinding) using white spirit is allowed;

▪ to remove dust.

Application

- mix primer base thoroughly to homogenous suspension;
- add the binding agent into the base with constant stirring (proportion 100: 15 by mass, respectively);
- mix to a homogenous condition before application;
- dilute to working viscosity with SOLV-ES solvent (TU 2319-080-12288779-2009), if necessary.

Primer is recommended to be applied at temperatures from minus 15 °C to plus 40 °C and relative air humidity from 30 % to 80 % (aimed 50 % to 80 %).

The temperature of the surface to be painted must be above the dew point by at least 3 °C, but not above plus 40 °C. When painting, the temperature of the material should not be below plus 15 °C.

Primer should be applied in one layer by airless, conventional (air) spray, brush/roller. The parameters are given in the table:

Airless spray

Recommended thinner	SOLV-ES
Quantity	up to 5 % by mass
Nozzle diameter	0.015" - 0.019" (0.38 - 0.48 mm)
Pressure	10 - 15 MPa (100 - 150 bar)

Conventional (air) spray

Recommended thinner	SOLV-ES
Quantity	up to 10 % by mass
Nozzle diameter	1.8 - 2.2 mm
Pressure	0.3 - 0.4 MPa (3 - 4 bar)

Brush/roller

Recommended thinner	SOLV-ES
Quantity	up to 5% by mass

Equipment cleaning

SOLV-ES, thinners P4 and 646

Storage and handling

The primer is delivered in packages: base and binding agent packed in metal buckets or metal cans and plastic fuel cans.

Storage and transportation conditions of primer – according to GOST 9980.5-2009 (at air temperature from minus 40 °C to plus 40 °C). The container with primer shall be protected from atmospheric condensation and direct sunlight.

The shelf life of the primer base (zinc paste) in hermetically enclosed original container is 12 months, binding agent – 6 months starting with the manufacture date.

Precautions

When working with the primer, one shall observe the existing sectoral standard norms and requirements and safety measures as specified on the package label.

Personal protective equipment (goggles, face masks and respirators) shall be used, inhalation of thinners and contact of the composition or its components with skin, ocular mucosa, respiratory channels shall be avoided; use inside the premises is allowed only in case sufficient ventilation is provided.

The primer is classified as a fire-hazardous material.

The information is of general character, without consideration to the object specific nature. Use of materials for other purposes not specified here or in case other influencing factors are present shall be approved by the VMP Holding CJSC in writing. In case of absence of such approval the manufacturer is not held liable for the improper use of the material and the buyer falls from the right to present claims connected with the coating quality.



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