

Description

Zinc-rich primer based on epoxy resin with a high content of non-volatile matter. According to the metal zinc mass content (more than 89 %) the coating meets the operational requirements SSPC Paint 20 (level 1, type II), can be considered as "cold" galvanizing.

Double-packed, consists of a base and a polyamide hardener.

Recommended use

Anticorrosive protection of steel articles and structures operated in the atmospheric conditions of all macroclimate areas, types of atmosphere and placement categories according to GOST 15150. The coating is resistant to sea and fresh water, aqueous solutions of salts, to oil and oil products.

Due to the high content of zinc, the primer is recommended for the protection of objects operating in a highly corrosive industrial environment.

It is used as:

- protective primer in complex corrosion protection systems;
- independent coating in conditions of placement without exposure to direct sunlight.

Recommended for use:

- with ISOLEP-mio (TU 2312-050-12288779-2005), POLYTON-UR (UV) (TU 20.30.12-033-12288779-2018), POLYTON-UR (TU 2312-029-12288779-2002), VINICOR-62 type A (TU 20.30.12-001-54359536-2018) enamels, with the composition ALUMOTAN (TU 2312-018-12288779-99), as well as with enamels on epoxy, polyurethane, vinyl chloride and copolymer-vinyl chloride bases;
- in complex fire-proof systems with the compositions of the PLAMCOR series.

Certificates, approvals

Certificate of state registration No. RU.66.01.40.015.E.000146.07.17 dated 16.07.2018.

Oil and Gas Industry: Register of Gazprom JSC, (for anticorrosive protection of marine structures); recommended to the application of Rosneft JSC – introduced in the Technological Instruction P-05 TI-0002, meets the requirements of the Technological Instruction P2-05.02 TI-0002, letter No. AP-5484 dated 06.04.2016.

Transport construction: STO 12288779-001-2013 State Company Avtodor; accreditation of Russian Railways JSCO, standard technological regulations for the anticorrosive protection of metal superstructures of new railway bridges 12288779.02073.00160; STO-01393674-007-2015 Central Research Institute of Construction JSC.

Industrial and civil construction: recommended to the application according to GOST 9.401 (amend. 2), RD GM-01-02 Trest Gidromontazh, recommendations of NIKIMT-Atomsgroi JSC for use in nuclear power plants.

Approvals: Lacquer Coating Research Institute, Khotkovo town; Institute for Corrosion Protection Dresden, (Germany), All-Russian Scientific Research Institute of Railway Transport, Central scientific Research Institute of Construction, Central Marine Research and Design Institute, Institute of Ecology and Evolution Problems RAS named after A.N. Severtsov (Russian-Vietnamese Research and Technology Center, Nyachang, SIC, Sochi, CIS, Severomorsk).

Technical data

Appearance and color of coating	Gray, the shade is not standardized
Cross cut adhesion, grades, not more than	1
Heat resistance in dry atmosphere	120 °C
Density of primer-enamel g/cm ³	2.80 – 3.00
Pot life at temperature (20±2)°C, h	12, not less than
Non-volatile matters	
by volume, % volume	56 – 58
by mass, % mass	84 – 87
Viscosity	Thixotropic
Dry film thickness, µm	40 – 80
Wet film thickness of, µm	70 – 140
Drying time at a temperature of 20 °C, hours	
- to 3 degree (GOST 19007)	2
- "to turning over, handling"	11
Theoretical spreading rate of one-layer coating, g/m ²	195 – 390

Surface preparation

- to degrease metal surface to 1 grade according to GOST 9.402;
 - to do abrasive blasting cleaning of scale, rust and traces of old paint to not less than 2 grade according to GOST 9.402 or Sa 2 1/2 according to ISO 8501-1 with a roughening of 30-50 µm (segment 2 of G comparator according to ISO 8503-2). Application on a smooth surface is not allowed;
 - to remove dust.
- The primer should be applied no later than 6 hours after abrasive blasting.
Before applying subsequent layers, the coated surface must be clean from dirt, degreased, dust-free and dry.

Application

- mix the primer base to a homogeneous condition before application;
 - add a hardener to the primer base with constant stirring, mix thoroughly during 2-3 minutes to a homogeneous condition. The mixing ratio of base and hardener: by mass 100:5.5, by volume 5.4:1;
 - hold for at least 30 minutes before application and mix again to a homogeneous condition;
 - dilute to working viscosity, if necessary,
- For the organization of painting work, the decrease of the pot life with increasing temperature should be taken into account. Dependence of the pot life on the ambient temperature is given in the table:

Parameter name	Ambient temperature				
	0 °C	+10 °C	+20 °C	+30 °C	+40 °C
Pot life, hours	40	24	12	6	4

It is recommended to apply the primer at temperatures from 0 to plus 40 °C (allowed at temperature from minus 5 °C) and relative air humidity of not more than 85 %. 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.

Apply 1-2 layers by airless, conventional (air) spray, brush/roller (striped painting).

The parameters are given in the table:

Airless spray

Recommended thinner	SOLV-EP (TU 20.30.22-106-12288779-2018), thinners 646, 647, 648
Quantity	up to 5 % by mass
Nozzle diameter	0.015" - 0.021" (0.38 - 0.53 mm)
Pressure	15 - 25 MPa (150 - 250 bar)

Conventional (air) spray

Recommended thinner	SOLV-EP, thinners 646, 647, 648
Quantity	up to 5 % by mass
Nozzle diameter	1.8 - 2.2 mm
Pressure	0.3 - 0.4 MPa (3 - 4 bar)

Brush/roller

Recommended thinner	SOLV-EP, thinners 646, 647, 648
Quantity	up to 5 % by mass

Equipment cleaning

SOLV-EP,
thinners 646, 647, 648

Drying of the coating is natural. When the temperature increases, the drying time shortens (data for the dry film thickness of 60-80 µm is given in the table):

Drying degree	Time, minutes (minutes), h (hours) at ambient temperature, °C						
	-5	0	+10	+20	+25	+30	+40
To overlapping (minimal)	30 h	15 h	5 h	3 h	2 h	1 h	0.5 h
To turning over, handling	6 d	3 d	24 h	11 h	8 h	6 h	1.5 h
To stackable	10 d	5 d	48 h	14 h	10 h	8 h	3 h

The hardening time is recommended as an approximate for practical painting. Hardening time depends on the surface temperature and ambient air, the dilution ratio of the material, the coating thickness, the efficiency of ventilation and the relative air humidity.

The drying time "to turning over, handling", "to stackable" depends also on the design features of metal structures (the number of support points, sling arrangements, metal structures fasteners for further transportation) and may differ from those indicated. It should be determined by test coloring for specific conditions.

The maximum holding time before coating application is not more than 1 year. The holding time of the coating at a temperature of 20 °C before packing and shipping – at least 24 hours, before the operation in severe environments is not less than 7 days.

Storage and handling

The primer is delivered in packages: base and hardener packed in metal buckets and metal cans respectively depending on the weight of set.

Storage conditions of the primer – according to GOST 9980.5 (at air temperature from minus 40 to plus 40 °C). The material components shall be stored away from heat sources, the container shall be protected from direct sunlight (short-term impact, not more than 3 hours, is acceptable) and atmospheric condensation.

The shelf life of the base is 12 months and hardener – 18 months, starting with the manufacture date, in hermetically enclosed original container.

Precautions

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

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

The primer and its components (base and hardener) are fire-hazardous materials!

The hardened coating is not harmful to human health.

The information is of general character, without consideration to the object specific nature and it is recommended to be read with the Application Guide. Use of materials for other purposes 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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