

Description

Primer-enamel based on modified epoxy resin, with a high dry residue. Double-packed, consists of a base and a polyamine hardener.

When applied to the metal provides excellent anticorrosive protection when operating in river and sea water. The coating is characterized by high abrasion resistance, impact resistance, resistance to salt solutions, oil and oil product spills, acids and alkalis. Can harden at low temperatures. Compatible with cathodic protection system.

Recommended use

Anticorrosive protection of marine and river hydraulic structures of general and special purpose, including port facilities.

It is used as an independent coating in the zones of full immersion (underwater zone) and intermittent immersion/moistening, as well as in a complex system with acrylurethane enamel POLYTON-UR (UV) (TU 20.30.12-033-12288779-2018) – in the spray zone (above-water zone).

Certificates, Approvals

Certificate of state registration No. RU.66.01.40.015.E.000123.07.18 dated 05.07.2018.

Oil and gas industry: introduced into the Register of PJSC "Gazprom", Register of PJSC "Transneft" in category P2 (full immersion);

Ruling document RD ГМ-01-02 (Appendix No. 3) JSC "Trest Gidromontazh".

Approved by testing centers: LLC SPA Coating industry, Khotkovo (category Im1-Im3 according to ISO 12944-2)

Technical data

	Coating
Color of coating	Gray, red-brown*
Gloss value of coating	Semigloss
	Primer-enamel
Density, g/cm ³	1.40-1.60
Viscosity of primer-enamel	Thixotropic
Pot life at temperature (20±2)°C, h	1, not less than
Non-volatile matters	
by volume, % volume	85±2
by mass, % mass	91±3
Thickness of dry film, μm	150-300
Thickness of wet film, μm	180-355
Drying time at a temperature of 20 °C, h, not less than	
to 3 degree (GOST 19007)	4
"to tack free"	3
"to turning over, handling"	10
Theoretical spreading rate of one-layer coating, g/m ²	255-510

* other colors are possible as agreed with the manufacturer

Surface preparation

- to degrease metal surface to 1 grade according to GOST 9.402;
- to do abrasive blast cleaning of scale, rust and traces of old paint to 2 grade according to GOST 9.402 (Sa 2 1/2 according to ISO 8501-1). Surface profile is sharp, angular with a roughness of 85-115 μm (segment 3 of comparator G according to ISO 8503-1); when performing local repair of the coating, the degree of cleaning St 3 according to ISO 8501-1 is allowed.
- to remove dust.

Before applying coating enamels or before applying a second layer of primer-enamel, the primer coating ISOLEP-hydro must be decontaminated, degreased and dustless.

Application

- mix the primer-enamel base to a homogeneous condition before application;
- add a hardener to the primer base with constant stirring, mix thoroughly if necessary, dilute to working viscosity. Mixing ratio of base and hardener: by volume 4:1, by mass 6.5:1, respectively.

The pot life of the primer-enamel (after mixing the components) at ambient temperature (20±0.5) °C is not less than 1 hour (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, °C		
	+15 °C	+(20±0,5)°C	+30 °C
Pot life of the primer-enamel	1.5 h	1 h	30 min.

It is recommended to apply the material at ambient temperature from minus 5 to plus 30 °C (it is allowed to apply up to plus 40 °C) and relative air humidity up to 85 %. The temperature of the surface to be painted must be at least 3 °C above the dew point.

When painting in low-temperature conditions, the temperature of the primer enamel must be not lower than plus 15 °C, otherwise it may be necessary to add a thinner to achieve a working viscosity. It is also recommended to add the thinner at an air temperature of plus 30 up to plus 40 °C to reduce the likelihood of a "dry flare" effect and increase the working life of the material.

Recommended application:

Airless spray

Recommended thinner	SOLV-EP (TU 20.30.22-106-12288779-2018)
Quantity	up to 3 % by mass
Pressure	28 MPa, not less
Nozzle diameter	0.019"-0.027" (0.48-0.69 mm)

Conventional (air) spray

Recommended thinner	SOLV-EP
Quantity	up to 12 % by mass
Pressure	0.3-0.4 MPa
Nozzle diameter	1.8-2.2 mm

Brush/roller

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

Equipment cleaning

SOLV-EP
thinners 646, 647, 649, P-4

The addition of an oversize amount of thinner leads to paint drips and an increase in the hardening time of the coating.

Hardening time of ISOLEP-hydro coating and the time before overlapping with coating enamels depending on air temperature is given in the table:

Parameter name	Surface temperature					
	-5 °C	0 °C	+10 °C	+20 °C	+30 °C	
<i>Hardening time of ISOLEP-hydro at a dry film thickness of up to 300 µm</i>						
to tack free	30 h	14 h	6 h	3 h	2 h	
to turning over, handling*	60 h	36 h	24 h	10 h	8 h	
to stackable	72 h	48 h	36 h	14 h	10 h	
to submergence	20 d	15 d	10 d	6 d	3 d	
<i>Time before overlapping ISOLEP-hydro</i>						
primer-enamel	Minimum	24 h	12 h	6 h	3 h	2 h
	ISOLEP-hydro	Maximum	6 mo	6 mo	6 mo	3 mo
enamel	Minimum	36 h	24 h	12 h	6 h	4 h
	POLITON-UR (UF)	Maximum	3 mo	3 mo	2 mo	1 mo
* Time depends on the design features of the metal structure (number of places, support points, sling arrangement, metal structure fasteners for further transportation) and may differ from specified.						

The hardening time is recommended as an approximate (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 actual time should be determined by test during coloring under specific conditions.

In case of exceeding the maximum overlap interval, before coating the subsequent layer, it is necessary to give the coating a roughness with a light blasting or a power tool.

Storage and handling

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

Storage conditions – in accordance with 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 and atmospheric condensation (short-term, not more than 3 hours, impact is acceptable)

Shelf life of the primer-enamel is determined by the warranty period of storage of the base (24 months) and hardener (12 months) starting with the manufacture date.

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 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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