

# POLYTON®-UR

enamel

(TU 2312-029-12288779-2002)



## Description

Single-packed polyurethane enamel, hardened with air moisture.

## Recommended use

Anticorrosive protection of metal, concrete and reinforced concrete structures used in atmospheric conditions of all macroclimate areas, types of atmosphere and placement categories according to GOST 15150.

POLYTON-UR coating is resistant to water, oil and oil products.

Used in complex coating systems as:

- intermediate coat;
- topcoat, in case of no intensive sun radiation (do not use as finishing coating in open atmospheric conditions, I placement category according to GOST 15150).

Recommended to use in coating systems with zinc-rich ZINOTAN (TU 2312-017-12288779), ZINEP (TU 20.30.12-022-12288779), ZFES (TU 20.30.12-004-12288779) and other polyurethane, epoxy, epoxy-ester and organic-silicone based primers.

Topcoat is POLYTON-UR (UF) (TU 20.30.12-033-12288779) and other acrylic-urethane and acrylic based enamels.

## Certificates, approvals

State registration certificate No. RU.66.01.40.015.E.000145.12.10 dated 20.12.2010

Conformity certificate (for fire-proof efficiency) No. C-RU/ПБ34.B.01733 dated 15.05.2015.

**Construction:** State construction recommendations P 1-2004 (in addition to SNiP 2.03.11), GOST 9.401 (amendment No. 2), GOST 31384, RD ГМ-01-02 of Trest Gidromontazh.

**Transport construction:** standards STO-01393674-007-2011 of Central Research Institute of Transport Construction, STO 001-2006 of Transstroy Group, technical regulations TR 12288779.02073.00007 (Central Research Institute of Transport Construction); standard technical regulations 12288779.02073.00058 for railroad bridges painting (RZD Holding).

**Oil and gas industry:** Register of Gazprom JSC, register and "technical instruction П2-05 C-028 3-002 E-001 of the company" of Rosneft JSC;

Decisions of Research Institute of Coating Industry with Experimental Mechanical Plant "Viktoriya", Melnikov Central Research and Design Institute of Steel Structures, Central Research Institute of Transport Construction, Scientific and Research Institute of Natural Gases and Gas Technologies, Scientific and Research Institute of concrete and reinforces concrete, Scientific, Bashneft Research and Project Institute, Scientific and Research Institute of Energy Structures (RusHydro).

## Technical data

	Coating
Color and gloss	basic colors: white, gray and red-brown (other colors – according to RAL, NOVA, NSC on request); matte
Thickness of dry layer, µm	40-70
Impact strength	50 cm, not less
Flexibility when folding	2 mm, not more than
Heat resistance in atmospheric conditions	150 °C
Adhesion (GOST 15140)	1 grade, not more than
	Enamel
Density, g/cm <sup>3</sup>	1.40-1.70
Viscosity	thixotropic
Non-volatile matter content, %	71.0-79.0
Theoretical spreading rate of one-layer coating, g/m <sup>2</sup>	100-180
Drying time to 3 degree (GOST 19007) at temperature (23±2)°C and relative air humidity (65±5)%, h	4, not more than

## Surface preparation

Priming coat shall be cleaned from dirt, dust, and degreased.

## Application

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- mix the enamel thoroughly to homogenous condition before application;
- if required, dilute to working viscosity immediately before application.

It shall be applied at temperatures from minus 15 °C to plus 40 °C and relative air humidity from 30 to 98 % in plant and field conditions.

In plant conditions, it is possible to apply enamel with drying agent for polyurethane paint and lacquer materials to decrease the drying time (by 1.5-2.5 times), at relative air humidity not less than 30 % (TU 2359-047-12288779).

Othercoating interval of primer before the application of POLYTON-UR enamel at temperature (20±2)°C and relative air humidity (65±5)%:

- ZINOTAN coating – not less than 4 hours (as relative humidity decreases, holding time increases);
- ZINEP coating – not less than 4 hours;
- ZFES coating – not less than 6 hours.

When applying multilayer coatings, each subsequent layer of POLYTON-UR enamel should be applied after the previous one has dried to "tack free" (slight touch on the coating does not leave a trace and does not give a feeling of stickiness).

When overlapping with the POLYTON-UR (UV) enamel, the recommended time intervals specified in the technological instructions should be strictly observed.

### **Airless spray**

Recommended thinner	without
Nozzle diameter	0.013"-0.021" (0.33-0.53 mm)
Pressure	10-15 MPa (100-150 bar)

### **Conventional (air) spray**

Recommended thinner	SOLV-UR (TU 2319-032-12288779)
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-UR
Quantity	up to 10 % by mass

### **Equipment cleaning**

SOLV-UR, petroleum naphtha, thinners 646 or P-4

## Storage and handling

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The enamel is delivered in metal buckets or cans.

Storage and transportation conditions of the enamel according to GOST 9980.5 (at temperatures from minus 40 °C to plus 40 °C). The container with enamel shall be protected from atmospheric condensation and direct sunlight.

The shelf life in hermetically enclosed original container is 12 months starting with the manufacture date.

## Precautions

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When working with the enamel, 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 enamel 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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