

Description

Primer enamel is two-packed: modified acrylic-polyurethane resin and aliphatic polyisocyanate hardener, contains corrosion inhibiting pigment – zinc phosphate. Color – according to RAL.

Can be applied directly to the metal without precoating ("direct-to-metal" – DTM coating type). It can be used as a finishing coating with appropriate epoxy or PU primers. It combines protective characteristics of primer and high-decorative qualities of enamel, resists to UV-radiation.

Recommended use

Anticorrosive protection of metal structures used in atmospheric conditions of all microclimate areas, types of atmosphere and location classes according to GOST 15150.

Thermal resistance is up to 120 °C in dry non-aggressive atmosphere.

Primer enamel is used:

- as an independent coating for protection in mildly and moderately aggressive environments;
- as a finishing coating in complex systems protect from corrosion of primers on epoxy and polyurethane bases;
- for local coating repairs based on epoxy and polyurethane primers and enamels.

Recommended to use with fireproof compositions of the PLAMCOR series.

Certificates/approvals:

State registration certificate No. RU.66.01.40.015.E.000188.12.17 dd. 28.12.2017.

Approved by testing center: Lacquer Coating Research Institute, Khotkovo town.

Technical data

	Coating
Color	According to RAL
Gloss	Semi-gloss
Adhesion (GOST 31149)	1 grade, max.
Heat resistance in dry atmosphere	120 °C
Dry film thickness, µm	50-120
	Primer-enamel
Density, g/cm ³	1.27-1.37
Pot life at temperature of 20°C, h	2
Non-volatile	
by volume, % vol.	59±2
by mass, % mass.	71±2
Wet film thickness, µm	85-200
Viscosity	Thixotropic
Theoretical spreading rate of one-layer coating, g/m ²	110-265
Drying time at temperature of 20°C, h	
to "tack free"	1,5
to 3 degree (GOST 19007)	4
"dry to handling"	6
Hiding power (GOST 8784), g/m ² , up to	
RAL 3020	200
RAL 5005, RAL 5017	175
RAL 7004	125
RAL 9003	160
RAL 9004	170

Surface preparation

When used as an independent coating:

- to degrease metal surface to grade not less than 1 according to GOST 9.402;
- to remove scale, corrosion and old paint by abrasive blasting to degree not less than 2 according to GOST 9.402 (Sa 2 1/2 ISO 8501-1). Preparing to Sa 2 grade is acceptable depending on further operating conditions. Surface roughness 30-50 µm (ISO 8503-2 2G segment). For repair painting it is acceptable to remove up to 3 grade according to GOST 9.402 (up to P Sa 2, P St 3 grades according to ISO 8501-2).
- to remove dust.

The primer coating shall be cleaned from dirt and if required degreased, dust and moisture shall be removed, when the primer-enamel is used in complex coating as a finishing layer.

Application

- mix the primer-enamel base until smooth;
- while mixing constantly add hardener, mix thoroughly for 2-3 minutes (base/hardener mixing)

ratio depends on the enamel color as stated on the label of the package and in the primer-enamel quality certificate);

- if required, use thinner to reach working consistency.

The primer-enamel shall be applied at temperatures from minus 10 °C to plus 40 °C and relative air humidity not exceeding 85 %. The recommended temperature range for application – from plus 5° C to plus 30 °C. Surface temperature on application and drying of the enamel shall be as minimum 3 °C higher than the dew point, however, not more than 40 °C. The enamel prepared for application shall have the temperature of plus 15 °C.

When painting is carried out at temperatures below 0 °C the surface shall be free from snow, ice and white frost. Within the first 24 hours after application of the enamel one shall avoid exposure of the coating to precipitation.

The primer-enamel shall be applied by airless spray, conventional (air) spraying or by brush/roller in 1-2 layers onto the clean and dry surface (for enamel of such rich colors as orange, red, yellow, it is recommended to apply two layers):

- thickness from 80 to 120 µm when applied as an independent coating;
- thickness from 50 to 100 µm when applied as a finishing layer in complex protective systems.

Recommended application procedures:

Airless spray

Recommended thinner without
Pressure 10-15 MPa (100-150 bar)
Nozzle diameter 0.011"-0.015" (0.28-0.38 mm)

Conventional (air) spray

Recommended thinner SOLV-UR (TU 2319-032-12288779)
Quantity up to 5 % by mass
Pressure 0.3-0.4 MPa (3-4 bar)
Nozzle diameter 1.8-2.2 mm

Brush/roller

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

Equipment cleaning

SOLV-UR,
thinners 646, 647, 649

The process provides for natural drying; the parameters are shown in the table below:

Drying degree	Temperature, °C					
	-10	0	+10	+20	+30	+40
Tack free	25 h	14 h	6 h	1,5 h	1 h	0,5 h
Turning over, handling *	48 h	31 h	17 h	6 h	3.5 h	1.5 h
Stackable *	55 h	37 h	25 h	14 h	6 h	4 h

*The mentioned hardening time is recommended as estimated time for the technological process. Actual hardening time depends on the temperatures of surface and ambient air, dilution degree, coating thickness, ventilation efficiency, relative air humidity, design features and may differ from those stated.

Holding time at temperature of 20 °C before the application of next layer – not less than 4 hours, to operating in aggressive environments – not less than 7 days, at temperature of minus 10 °C – not less than 30 days.

Storage and handling

The primer-enamel 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 tare shall be protected from direct sunlight and atmospheric condensation.

The shelf life of the base and hardener is 24 months starting with the manufacture date.

Precautions

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

One shall use personal protective equipment (goggles, face masks and respirators) and avoid inhalation of solvents and contact of the composition substances with skin, eye mucosa, respiratory channels; use inside the premises is allowed only in case sufficient ventilation is provided.

The primer-enamel and its components (base, hardener) are classified as a fire-hazardous material.

The hardened coating is not harmful to human health.

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 Close joint stock company "Scientific Industrial Holding «VMP» 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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