

VINICOR®-ecoprime

primer-enamel
(TU 20.30.12-010-67503963-2017)



Description

Double-packed primer-enamel based on epoxy resin and amine-type hardener; contains corrosion inhibitors.

Recommended use

The primer-enamel shall be applied for protective and decorative coating of:

- the outer surfaces of freight rolling stock of all types and other railway transport objects;
- the inner surfaces of freight wagon body used for non-food bulky goods, including mineral fertilizers (excluding grain hopper wagons and covered lining wagons);
- the metal structures of railway infrastructure (excluding railroad bridges);
- other metal structures used in atmospheric conditions and inside premises and exposed to aggressive environments.

The primer-enamel is recommended to be applied as an independent coating. When painting of metal structures used in atmospheric conditions, the primer-enamel can be overlapped with VINICOR-62 (TU 20.30.12-001-54359536-2018), POLYTON-UR (UV) (TU 20.30.12-033-12288779-2018) enamels, VINICOR (TU 20.30.12-001-54359536-2018), VINICOR-acryl (TU 2312-005-67503963-2015) primer-enamels, and other epoxy-vinyl, epoxy, acrylate and polyurethane enamels and primer-enamels, if required.

It is allowed to apply the primer-enamel on consolidated residual corrosion products and old coatings based on alkyd, vinyl, epoxy-vinyl or epoxy materials.

Certificates, Approvals

State registration certificate No. RU. 77.01.34.008.E.000475.03.18 dated 05.03.2018;
It is included in GOST 7409-2018 "Freight wagons. Requirements to paintwork coatings and anticorrosive protection and control methods";
It is approved by the Railway Research Institute – decision No.1536 on application for painting of freight rolling stock of railway transport.

Technical data

Color of the coating	red-brown, blue, green, beige*, gray*, black, and other colors
Gloss of the coating	matt
Density of the primer-enamel, g/cm ³	1.4±0.1
Viscosity according to viscometer with 4 mm nozzle diameter at temperature (20±5)°C, s, not less than	50
Pot life at temperature (20±2) °C, h, not less	8
Non-volatile matters	
- by volume, % (volume)	62±2
- by mass, % (mass)	75±3
Drying time to 3 degree (GOST 19007), at temperature (20.0±2)°C, h, not more than	6
Dry film thickness, µm	40-120
Wet film thickness, µm	65-200
Theoretical spreading rate of one-layer coating, g/m ²	90-270

** It is recommended to apply beige- and gray-colored primer-enamel for painting of the inner surfaces of freight wagon body; primer-enamel of all colors is applied for outer surfaces.*

Surface preparation

For railway transport objects:

- to degrease metal surface to the 1 grade according to GOST 9.402;
- to do abrasive blast cleaning from scale, corrosion products and old coatings to at least 2 grade according to GOST 9.402 (or not less than Sa 2 ½ according to ISO 8501-1), recommended surface roughness is 30-50 µm with grit profile;

Surface cleaning to 3 grade according to GOST 9.402 (or not less than Sa 2 according to ISO 8501-1) is allowed for painting of other objects.

Cleaning with power tool to degree not less than St 2 according to ISO 8501-1 is allowed in hard-to-reach places and for painting of small areas;

- to remove dust.

Before the second layer application, and before finishing enamel application, the coating shall be dry, clean, oil and dust shall be removed.

Application

- mix base thoroughly to homogenous condition before application;
- with constant stirring, add a hardener to the base and mix thoroughly.

The mixing ratio of the base and hardener (EN-14) by mass 100:7.5

- if necessary, the composition should be diluted to the working viscosity;
- holding time of the prepared material before application is 15-20 minutes covered with a lid.

When organizing painting works, at temperature increase, it is necessary to consider the working life decrease of applied material (after mixing the components).

The material is recommended to be applied at temperature from minus 10 to plus 35 °C (when painting the railway freight rolling stock, the recommended temperature range is from plus 5 to plus 35 °C) and relative air humidity not more than 85 %. The temperature of the painted surface shall be above the dew point by at least 3 °C, but not more than 40 °C.

The material is recommended to be applied in 1-2 layers.

Recommended application methods:

Airless spray

Recommended thinners	no thinner
Pressure	15-21 MPa (150-210 bar)
Nozzle diameter	0.015"- 0.021" (0.38- 0.53 mm)

Conventional (air) spray

Recommended thinners	SOLVIN-12 (TU 20.30.22-014-67503963-2018)
Quantity of thinner	up to 8 % by mass
Pressure	0.2-0.4 MPa (2-4 bar)
Nozzle diameter	1.8-2.2 mm

Brush/roller

Recommended thinners	SOLVIN -12
Quantity of thinner	up to 8 % by mass

Equipment cleaning

SOLVIN -12,
thinners 646, P4

Intermediate drying between the layers of the primer-enamel and before finishing enamels application is not less than 6 hours at temperature of plus 20 °C; 1 hour at temperature of plus 60 °C.

Hardening time depends on the temperature of surface and ambient air, degree of the material dilution, coating thickness, ventilation efficiency, and relative air humidity.

Holding time of the coating before operating in aggressive conditions is not less than 7 days at temperature from plus 15 to plus 22 °C. Holding shall be increased at air temperature decrease.

When painting the railway freight rolling stock, one shall observe the GOST 7409-2018 instructions.

Storage and handling

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

Storage conditions – according to GOST 9980.5 (at air temperature from minus 40 to plus 40 °C). The container with the material components shall be stored away from heating sources, protected from atmospheric condensation and direct sunlight.

The shelf life in hermetically enclosed original containers is determined by warranty storage of the base (24 months) and hardener (12 months) starting with the manufacture date.

Precautions

When working with the material, 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 thinners and contact of the material or its components with skin, eye mucosa, respiratory channels; use inside the premises is allowed only in case sufficient ventilation is provided.

The material and its components (the base and hardener) are fire-hazardous!

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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