ISOLEP®-mio

mid/finish coat

(TS 2312-050-12288779-2005)

VMP 1991

Quality management system is certified according to ISO 9001

Description

ISOLEP-mio is a two-component high-build polyamine cured modified epoxy coating, contains "iron" mica.

Recommended use

Anticorrosive protection of steel articles and structures operating under atmospheric conditions of all macroclimatic regions, atmosphere types and location categories as per GOST 15150. Suitable for galvanized steel.

ISOLEP-mio is used in complex coating systems as:

- mid coat;
- topcoat in the absence of intensive exposure to solar radiance (not recommended to use as a finish coat in outdoor conditions, I placement category according to GOST 15150).

ISOLEP-mio withstands oil and oil products spills, solutions of salts, acids and alkalis; waterproof.

It is recommended for application in coating systems with ZINEP, ISOLEP-primer, ZFES and with other epoxy or silicone primers.

As a top coat it is recommended to use the POLYTON-UR (UV) and POLYTON-UR and other polyurethane and epoxy topcoats.

Certificates, approvals

Certificate of state registration No. RU.66.01.40.015.E.000134.12.10 dated 03.12.2010.

Transport construction: Central Scientific and Research Institute of Transport Construction Standart (СТО АО «ЦНИИС»), GC Avtodor Standart, standard process procedure to paint bridges «Russian Railways».

Oil and gas Industry: registers of Gazprom (offshore structures), Rosneft, Lukoil.

Industrial and civil construction: GOST 9.401-2018, Guidance document Trust Gidromontazh (РД ГМ-02-18), MMC Norilsk Nickel.

Expert statement by the NPO «LKP» Khotkovo town, JSC «TSNIIS»,

Technical data

Appearance and color	Homogeneous semi-matte gray or mustard color (the shade is not standardized)
Thickness of one dry layer, μm	80-200
Theoretical spreading rate, g/m^2	170-420
Adhesion (GOST 15140)	1 grade, not more than
Heat stability (in dry non-aggressive atmosphere)	120 °C, 150 °C short-term
Coating class (GOST 9.032)	V
Density g/cm^3	1.50±0.05
Viscosity	thixotropic
Solids	
by volume, %	71±2.0
by mass, %	84±2.0
Drying time to degree 3 at (20±2)°C (GOST 19007), h	3, not more than
Pot life at (20±2) °C, h	1.5, not less than

Surface preparation

Primer coating:

- degreasing (if required) to the 1 grade according to GOST 9.402;
- remove moisture, dust.

Galvanized steel:

According to ISO 12944-4.

Application

- mix the base to a homogeneous condition;
- add the hardener to the base with constant stirring (base – hardener mixing ratio 5.2:1 by mass, 3:1 by volume), after mixing it is ready for application;
- dilute with the thinner to the working viscosity, if necessary.

ISOLEP-mio should be applied at plant and field conditions at temperatures from minus 10 to plus 40 °C and relative air humidity not exceeding 85 %.

Recommended methods of application:

Airless spray

Recommended thinner	SOLV-EP (TS 20.30.22-106-12288779-2018)
Quantity	up to 10 % by mass
Nozzle diameter	0.015”-0.021” (0.38-0.53 mm)
Pressure	10-15 MPa (100-150 bar)

Conventioanal (air) spray

Recommended thinner	SOLV-EP
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-EP
Quantity	up to 10 % by mass

Equipment cleaning SOLV-EP or thinners 646, P-4

Overcoating intervals of coating by ISOLEP-mio (at (20±2)°C) are given in the table:

Drying time	Underlying layer				
	ZINEP	ISOLEP-primer	ZFES	ISOLEP-mio	Other primers
Minimum to overcoating by ISOLEP-mio, h	4	2	6	3	24

Drying of the coating is natural, the drying time of the coating with a thickness of 80-100 microns, depending on the temperature, is given in the table:

Drying stages	Drying time at ambient temperature, °C					
	-10	0	+10	+20	+30	+40
To tack free, h	32	15	4	2	1,5	1
To 3 degree (GOST 19007), h	50	24	6	3	2	1
Min to overcoat, h	70	30	8	4	2	1
To handle *, h	80	40	14	5	3	2
To packing and shipping *, h	88	44	17	10	6	4
To through dry, d	60	24	10	7	3,5	2
Max to overcoat, h	6 months					

* The specified curing time is recommended to be taken as a guideline for the technological process. In fact, the curing time depends on the temperature of the surface and ambient air, the degree of dilution of the material, the thickness of the coating, the efficiency of ventilation, the relative humidity of the air, the design features of the structures and may differ from the indicated.

If the maximum time is exceeded and the structures are stored for a long time under the influence of sunlight, additional measures are necessary to improve the adhesion of the layers of the coating enamels – treatment of the coating with ISOLEP-mio using detergent MS-01 (TS 2381-095-12288779-2013).

Storage and handling

ISOLEP-mio is supplied as the Base and the Curing Agent in metal containers.

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

The shelf life of the components is 24 months starting with the date of manufacture.

Precautions

When working with the enamel 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.

ISOLEP-mio is classified as fire-hazardous material.

The information is of general character, without consideration to the object specific nature and it is recommended to be read with the Operating Procedure. Use of materials for other purposes not specified here or in case other influencing factors are present shall be approved by 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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