



Quality management system is certified according to ISO 9001

## Description

ISOLEP-oil is a two component modified epoxy aliphatic polyamine cured coating. High solids, high build, abrasion resistant coating.

## **Recommended use**

ISOLEP-oil is used as a single coating system with high protective properties for anticorrosive protection of the internal surface of steel tanks, reservoirs, tank cisterns, industrial pipelines that come into contact with crude oil and commercial oil, fuel oil; bottom, sea and fresh water; chemical solutions with weak acid and weakly alkaline media (pH 3-11), washing fluids.

Operating conditions according to GOST 9.032 – 4, 6/1, 7/4.

The recommended operating temperature is up to plus 60 °C (for a short time it is allowed up to plus 75 °C, it can stand steaming operation).

# **Certificates, Approvals**

Certificate of state registration No. RU.66.01.40.015.E.000124.07.18 dated 05.07.2018.

Approved by testing centers: VNIIST, NII Transneft, NII LKP Khotkovo as reinforced type coating with a predicted service life of 20 years.

**Oil and gas complex:** Complies with the requirements of regulatory documents of companies Transneft, Lukoil, Rosneft, Surgutneftegaz.

# **Technical data**

|  | Coating                |  |  |  |  |  |
|--|------------------------|--|--|--|--|--|
| Color of coating                               | gray                   |  |  |  |  |  |
| Gloss value of coating                         | glossy                 |  |  |  |  |  |
| Dry film thickness, μm                         | 300-500                |  |  |  |  |  |
| Co   | Composition            |  |  |  |  |  |
| Density of composition, g/cm <sup>3</sup>      | 1.40-1.55              |  |  |  |  |  |
| Working life at temperature (20±2)°C, h        | 1, not less            |  |  |  |  |  |
| Drying time at a temperature, h, not more      |                        |  |  |  |  |  |
| - to 1 degree (GOST 19007) at (23±2) °C        | 4.5, not more than     |  |  |  |  |  |
| - to 3 degree (GOST 19007) at (23±2) °C        | 10.0, not more than    |  |  |  |  |  |
| Wet film thickness, µm                         | 350-580                |  |  |  |  |  |
| Theoretical consumption one-layer coating, g/m | 1 <sup>2</sup> 465-775 |  |  |  |  |  |
| Solids   |                        |  |  |  |  |  |
| - by volume, % volume                          | 90                     |  |  |  |  |  |
| - by mass, % mass                              | 90-95                  |  |  |  |  |  |

# Surface preparation

to degrease metal surface to 1 grade according to GOST 9.402;

• to do abrasive blast cleaning of scale and corrosion to grade not less than 2 according to GOST 9.402 (Sa  $2\frac{1}{2}$  according to ISO 8501-1). Surface profile is sharp, angular with a roughness of 85-115  $\mu$ m (segment 3G according to ISO 8503-2);

to remove dust.

Reducing the surface preparation grade and application on a smooth surface without a roughening is not allowed. The allowed interval between preparation of the surface and application of the first coating layer should not exceed 6 hours in the absence of sweating on the surface and exclusion of any variety of contamination.

### Application

 mix the base to a homogeneous condition for 1-3 minutes using an electric stirrer before application;

with constant stirring add a hardener to the base (mixing ratio of base and hardener: 3.6:1 by volume);

• mix thoroughly with an electric mixing machine.

The pot life of ISOLEP-oil (after mixing the components) at ambient temperature  $(20\pm2)$  °C is not less than 1 hour (for the organization of painting, the decrease of the pot life with increasing temperature should be taken into account).

ISOLEP-oil may be applied at an ambient temperature of plus 5 to plus 40 °C (recommended from plus 5 to plus 30 °C) and relative humidity not more than 80 %. The temperature of the surface to be painted must be above the dew point by at least 3 °C, but not above plus 40 °C.

When painting, the temperature of the material must be not less than plus 15 °C.

Recommended application methods:

#### <u>Airless spray\*</u>

| Recommended thinner | Dilution is not recommended             |
|---------------------|---|
| Nozzle diameter     | 0.015"-0.021" (0.38-0.53 mm)            |
| Pressure            | 20-30 MPa (200-300 bar)                 |
| <u>Brush/roller</u> |   |
| Recommended thinner | SOLV-EP (TS 20.30.22-106-12288779-2018) |
| Quantity            | not more than 3-5 % by mass             |
| Equipment cleaning  | SOLV-EP                                 |
|                     | thinners 646, 647, 649                  |
| - P. P. 11          |   |

\* For application use airless spraying equipment with a feed rate of material not less than 6 l/min

Application by airless spray is recommended in 1 layer, brush or roller – 2-3 layers allowed. Drying of the coating is natural. Drying time is given in the table

| Stages in drying                    | Time, h (hours), d (day) at ambient temperature, ° C |      |      |      |     |     |       |
|-------------------------------------|--|------|------|------|-----|-----|-------|
|                                     | +5   | +10  | +15  | +20  | +25 | +30 | +40   |
| To tack free                        | 26 h   | 17 h | 11 h | 6 h  | 5 h | 4 h | 2.5 h |
| Degree 3 according<br>to GOST 19007 | 30 h   | 20 h | 15 h | 10 h | 7 h | 5 h | 3 h   |
| Drying for service                  | 14 d   | 11 d | 9 d  | 7 d  | 6 d | 4 d | 2.5 d |

The required hardening time is recommended as an approximate for practical coloring. 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.

#### Storage and handling

The composition is delivered in packages: base and hardener packed in metal containers 20 I and 5 I.

Storage and transportation conditions – in accordance with GOST 9980.5 at air temperature from minus 40 to plus 40 °C. When storing the container should not be exposed to atmospheric precipitation and direct sunlight, short-term storage of the container under direct sunlight is allowed, but not more than 3 hours.

Shelf life in hermetically enclosed containers while meeting the requirements is 24 months starting with the manufacture date.

#### Precautions

When working with ISOLEP-oil, 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) should be used, and inhalation of thinners and contact of the composition with skin, ocular mucosa, respiratory channels shall be avoided; use inside the premises is allowed only in case sufficient ventilation is provided.

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

The hardened coating is not harmful to human health.

The information is of general character, without consideration to the object specific nature and it is recommended to be read with the Application Guide. Use of materials for other purposes 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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