

# ISOLEP<sup>®</sup>-oil 350 AS

composition

(TU 20.30.12-081-12288779-2017)



Quality management system  
is certified according to ISO 9001

## Description

Double-packed epoxy composition consisting of a base and an amine hardener.

## Recommended use

It is used as an independent coating for anticorrosive protection of the internal surface of steel tanks, reservoirs, tank cisterns, industrial pipelines contacting with light oil products (gasoline, aviation fuel, diesel fuel, heavy and light gas oils, light naphtha, gas condensate distillation apparatus, hydrocarbon thinners – white spirit, solvent, oil thinner), liquefied natural gas.

It has resistance to sea water, technological lubricating and cooling liquids and cleaning liquids.

The coating is highly abrasion resistant. Contains an additive agent to increase the electrical conductivity, which allows the coating not to build a static charge. Recommended operating temperature in liquid fluids 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.000110.08.17 dated 24.08.2017

## Technical data

	Coating
Color of coating	black
External appearance of coatings	glossy
Volume resistivity, Ohm*m, not more than	10 <sup>7</sup>
	Composition
Density of composition, g/cm <sup>3</sup>	1.40±0.15
Pot life at temperature (20±2) °C, h	2
Drying time at a temperature, h:	
- to 1 degree (GOST 19007) at temperature (23±2)°C	4.5
- to 3 degree (GOST 19007) at temperature (23±2)°C	8
- "to tack disappearance" at temperature (20±2)°C	5
Dry film thickness, µm	100-170
Wet film thickness, µm	170-300
Theoretical spreading rate of one-layer coating, g/m <sup>2</sup>	210-360
Non-volatile matters	
by average volume, % volume	57
by mass, % mass	70-75

## 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 or Sa 2 1/2 according to ISO 8501-1. Surface profile is sharp, angular with a roughness of 85-115 µm (segment 3G according to ISO 8503-2);
- to remove dust.

The material should be coating no later than 6 hours after abrasive blasting. Before application of the second layer of material, the application surface must be cleared from dirt, degreased, dust-free and dry.

## Application

Mix the base of material with stirrer to a homogeneous condition before application; with constant stirring, add the hardener to the base, mix thoroughly for 2-3 minutes to a homogeneous condition.

The mixing ratio of base and hardener: by mass 6.3: 1, by volume 5:1

The pot life of ISOLEP-350 AS (after mixing the components) at ambient temperature (20±2) °C is not less than 2 hours. For the organization of painting, the decrease of the pot life with increasing temperature should be taken into account, the dependence is given in the table:

Parameter name	Ambient temperature, °C		
	+15 °C	+20 °C	+30 °C
Pot life of the composition	3.5 h	2 h	1 h

The material is recommended to be used when application and hardening can take place at ambient temperature of plus 5 to plus 40 °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.

During the coating the temperature of the material must be not less than plus 15 °C, otherwise, it may be necessary to add a thinner to achieve an operating viscosity (not more than 5 % by mass).

It is also recommended to add the thinner at an air temperature of plus 30 to plus 40 °C to reduce the likelihood of a "dry spray" effect and increase the pot life of the material. The addition of an excessive amount of thinner leads to runs and an increase in the curing time of the coating.

Recommended two-layer application with a total thickness of 200-340 µm.

Drying of the coating is natural. As the temperature increases, the drying time shortens. The minimum and maximum overlap interval of ISOLEP-oil 350 AS coating before the subsequent layer, and the time for its full hardening (drying for service) are given in the table (for a dry film thickness of 150 µm). The specified hardening time is recommended to be taken as indicative of practical coloring. The hardening time depends on the temperature of surface and ambient air, the degree of dilution of the material, the thickness of the coating, the efficiency of ventilation and the relative humidity of the air.

Drying degree	Time, h (hours), d (days) at ambient temperature, °C						
	+5	+10	+15	+20	+25	+30	+40
To tack free	25 h	17 h	10 h	5 h	4 h	3 h	2 h
The minimum overlap interval	31 h	21 h	13 h	8 h	5 h	4 h	3 h
The maximum overlap interval	10 d	7 d	5 d	4 d	4 d	3 d	2 d
Full hardening	14 d	11 d	9 d	7 d	6 d	4 d	2 d

If the maximum overlap time is exceeded, it is necessary to carry out an additional surface treatment for roughening (light sweeping).

Recommended application methods

**Airless spray**

Recommended thinner SOLV-EP (TU 20.30.22-106-12288779-2018)  
Quantity Not more than 5% by mass  
Pressure 20-30 MPa  
Nozzle 0.015"-0.021" (0.38-0.53 mm)

**Conventional (air) spray**

Recommended thinner SOLV-EP  
Quantity not more than 5% by mass

**Brush/roller**

Recommended thinner SOLV-EP  
Quantity not more than 5% by mass

**Equipment cleaning**

SOLV-EP  
thinners 646, 647, 649

## **Storage and handling**

The composition is delivered in packages: base and hardener packed in metal buckets and metal cans

Storage conditions – in accordance with GOST 9980.5 (at air temperature from minus 40 to plus 40 °C). The container with material components shall be stored away from heat sources, it shall be protected from direct sunlight (short-term – not more than 3 hours is allowed) and atmospheric condensation.

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

## **Precautions**

When working with the composition, 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) shall be used, and inhalation of thinners and contact of the material and 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 material 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.*



### **VMP RESEARCH & PRODUCTION HOLDING CJSC**

**Ekaterinburg** +7 (343) 357-30-97; 385-79-00; 385-66-10, office@fmp.ru

**Moscow** +7 (495) 411-65-03; 411-65-04, msk@fmp.ru

**Saint Petersburg** +7 (812) 640-55-20; 676-20-20, spb@fmp.ru

For VMP representation offices in Russia and abroad – **vmp-holding.ru**