

## Description

ISOLEP-thermo is a two-component polyamine cured epoxy phenolic primer (based upon novolac resin).

The base is a suspension of pigments, fillers, aluminum powder in a solution of epoxy novolac resin and organic solvents.

## Recommended use

Anticorrosion protection of metal structures operating under the influence of high temperatures up to 205 °C (up to 230 °C for a short time) in atmospheric conditions of all macroclimatic regions, atmosphere types and location categories as per GOST 15150. Can be used when structures are exposed to cryogenic liquids, under cyclic and sudden temperature changes (up to -196 °C).

Used as a single coat system.

It is recommended for use to protect insulated and uninsulated equipment and pipelines that are subject to cyclic exposure to dry and wet environments. Not intended for interior lining of tanks.

## Technical data

Color	red-brown
Density, g/cm <sup>3</sup>	1,40-1,65
Solids	
- by mass, %	84±6
- by volume, %	67±2
Pot life at (20±0.5)°C, h	2, not less than
Viscosity	thixotropic
Drying time degree 3 (GOST 19007) at (23±2)°C, h	10, not less than
Dry film thickness *, µm	100-200
Wet film thickness *, µm	150-300
Theoretical spreading rate, g/m <sup>2</sup>	220-440

\* By airless spray

## Surface preparation

- degrease metal surface till 1 grade according to GOST 9.402;
- abrasive blasting to remove scale and rust to 2 grade (GOST 9.402) or to Sa 2 ½ (ISO 8501-1). Surface profile of 50-75 µm (2-3 mils) is recommended. (segment 2 of G comparator ISO 8503-1). Can be cleaned to Sa 2 (8501-1) for small areas and hard to reach areas.
- remove dust.

## Application

- Prior to use mix the base until smooth;
- while mixing constantly add a hardener, then it is ready for use.

Base and hardener mixing ratio is given in the quality certificate and on the container label.

It is recommended to apply ISOLEP-thermo at ambient air temperature from minus 5 to plus 40 °C and relative humidity not more than 80 %. The temperature of the surface to be painted should be at least 3 °C above the dew point.

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

At an ambient temperature of 20-25 °C, primer must be used within 2 hours after mixing the base and hardener. As the temperature increases, the specified time decreases.

It is recommended to apply ISOLEP-thermo with a total thickness of 200 µm by airless spraying, conventional (air) spraying and with a brush / roller with. The maximum allowable coating thickness is 300 µm, exceeding this value may lead to cracking of the coating when exposed to high temperatures.

Recommended application methods:

#### **Airless spray**

Recommended thinner	without
Pressure	15-25 MPa (150-250 bar)
Nozzle diameter	0.015"-0.021" (0.38-0.53 mm)
Typical dry film thickness	100-200 µm
Typical wet film thickness	150-300 µm

#### **Conventional (air) spray**

Recommended thinner	SOLV-EP, 646, P-4
Quantity	5-10 % by mass
Pressure	0.2-0.4 MPa (2-4 bar)
Nozzle diameter	1.8-2.2 mm
Typical dry film thickness	50-75 µm
Typical wet film thickness	75-110 µm

#### **Brush/roller**

Recommended thinner	SOLV-EP, 646, P-4
Quantity	3-10 % by mass
Typical dry film thickness	50-75 µm
Typical wet film thickness	75-110 µm

#### **Equipment cleaning**

SOLV-EP  
Thinners 646, P-4, 647, 649

Overcoating intervals of ISOLEP-thermo with itself is shown in the below table:

Overcoating intervals	Time at ambient temperature, °C					
	-5	0	+10	+15	+25	+40
Minimum, h	80	57	36	24	16	16
Maximum, days	10	8	5	4	2	2

The actual drying time also depends on the surface temperature, the degree of dilution, the thickness of the coating, the ventilation efficiency and the relative humidity of the air.

The recommended exposure time of the coating before the start of operation is at least 7-10 days at a temperature of 20-25 °C.

## **Storage and handling**

ISOLEP-thermo is supplied as the base and the hardener in metal containers.

Storage conditions of the base and curing agent - in accordance with GOST 9980.5 (at ambient air temperature from minus 40 to plus 40 °C). In storage the package shall be protected from lasting direct sunlight and atmospheric condensation. It is allowed to store the package with ISOLEP-mastic components under direct sunlight, however not more than 3 hours.

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

## **Precautions**

When working with the ISOLEP-thermo 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-thermo 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 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, spb@fmp.ru

For VMP representation offices in Russia and abroad – [vmp-holding.ru](http://vmp-holding.ru)