

# FERROTAN®-pro

penetrating primer  
(TU 2312-042-12288779-2004)



## Description

This primer is a suspension of inorganic pigments and fillers in mixture of volatile organic solvents and polyurethane varnish. Single-packed, cured under atmospheric moisture.  
Primer is manufactured in red-brown color and colorless.

## Recommended use

Anticorrosive protection of structures used in weather conditions of all macroclimatic areas, types of environment and environmental class according to GOST 15150-69:

- Steel structures – red-brown primer,
- Reinforced concrete and concrete structures, including underground structures – red-brown or colorless primer.

When applying to the **steel structures** this primer demonstrates good spreadability and wetting properties; it works as sealing primer on residual rust. It is recommended for painting the steel structures with surface treated up to 4 grade according to GOST 9.402-2004 (St 3 - St 2 according to ISO 8501-1:2007), i.e. surfaces with traces of tightly adherent rust and mill scale.

When applying to the **concrete and reinforced concrete structures** it penetrates well and strengthens the concrete surface.

This primer is used in complex coating systems with polyurethane coating products: FERROTAN (TU 20.30.12-036-12288779-2018), POLYTON-UR (TU 2312-029-12288779-2002), and ALUMOTAN (TU 2312-018-12288779-99).

## Certificates, Approvals

Certificate of state registration No. RU.66.01.40.015.E.000060.03.11 dated 16.03.2011.  
GOST 31384-2008.

Decisions of Research Institute of Transport Construction, Research Institute of Coating Industry with Experimental Mechanical Plant "Viktoriya", Research Institute of Reinforced Concrete and Concrete.

## Technical Data

	<b>Coating</b>
Appearance and color	Red-Brown or Colorless uniform coating (shade is not rated)
Dry film thickness per coat, μm	20-40
Impact resistance	50 cm, not less than
Flexibility	3 mm, not more than
Adhesion	1 degree, not more than
Thermal resistance	150 °C
	<b>Primer</b>
Viscosity according to viscometer with nozzle diameter 4 mm at temperature (20±2)°C, s	18-60
Density, g/cm <sup>3</sup>	1.00-1.25
Non-volatile matter content, %	62-67
Theoretical spreading rate, g/m <sup>2</sup>	45-90
Drying time to 3 degree (GOST 19007-73) at temperature (20±2)°C and relative air humidity (65±5)%, h	Red-Brown: 9, not more than Colorless: 10, not more than

## Surface Preparation

### **Steel surface:**

- degreasing up to 1 grade according to GOST 9.402-2004;
- power tool cleaning of peeling rust and mill scale up to 4 grade according to GOST 9.402-2004 (St 3 or St 2 according to ISO 8501-1:2007),
- cleaning of dust.

**Concrete surface** made ready for coating according to SNiP 3.04.03-85 shall be uniformly rough and free of any protruding reinforcement, cracks, holes, pockets, laps, splits of edges, oil stains, contamination, and dust.

### Procedure:

- remove contamination, oil and grease;
- remove lime (cement) milk, destructed or peeling layers of concrete and previous coatings with abrasive cleaning, grinding machine or brushes;
- remove dust;
- repair cracks and splits.

Holding time for concrete base after concrete casting prior to primer application shall be at least 28 days; after use of leveling compounds holding time shall be according to standard documentation of compound manufacturer.

## Application

Prior to application the primer shall be thoroughly mixed until homogeneous state is achieved.

During application the base temperature shall be at least 3 °C higher than dew point; humidity of concrete base shall be at most 4 % by weight.

Primer is applied at temperature between minus 15 °C and plus 40 °C and relative air humidity between 30 % and 98 % (the optimum application is at relative air humidity between 40 % and 80 % and at temperature between plus 5 °C and plus 30 °C).

### **Airless spray**

Recommended thinner	none
Nozzle diameter	0.013"-0.017" (0.33-0.43 mm)
Pressure	10-15 MPa (100-150 bar)

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

Recommended thinner	SOLV-UR (TU 2319-032-12288779-2002)
Quantity of thinner	up to 5 % by weight
Nozzle size	1.8-2.2 mm
Pressure	0.2-0.4 MPa (2-4 bar)

### **Brush**

Recommended thinner	SOLV-UR
Quantity of thinner	up to 5 % by weight

### **Roller**

not recommended

### **Equipment cleaning**

SOLV-UR thinner, naphtha, P-4

Drying time of coating depends on temperature and relative air humidity: when air humidity increases the drying time decreases.

Each following FERROTAN-pro primer coat shall be painted after drying of the previous coat up to 3 degree according to GOST 19007-73.

Minimum holding time for FERROTAN-pro coat prior to painting of top coat is "touch dry" drying time (when thoroughly touched with hand no marks remain on the coating); maximum holding time at temperature plus 20 °C and relative air humidity up to 50 % is 7 days. With increasing temperature and air humidity, the maximum inter-layer interval of drying is recommended to be reduced to 3 days.

More detailed information the coating drying is given in the technological instruction. To avoid the occurrence of coating defects and to ensure good adhesion of subsequent layers, it is necessary to observe the interlayer coating drying intervals.

## Storage and Handling

Primer is packed in metal buckets or metal cans.

It shall be stored according to GOST 9980.5-2009 (in closed warehouse rooms at ambient temperature between minus 40 °C and plus 40 °C). During storage the containers with primer shall be protected from atmospheric precipitation and direct sunlight.

Shelf life of varnish stored in manufacturer containers is 12 starting with the manufacture date.

## Precautions

When working with primer the related 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; inhalation of solvents at their evaporation and contact of skin, ocular mucosa, and respiratory tract with primer shall be avoided; indoor use is permitted only in case of sufficient ventilation.

The primer is classified as a fire-hazardous product.

*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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