

# PLAMCOR®-4

fire-proof coating

TU 23.64.10-105-12288779-2021



Quality management system  
is certified according to ISO 9001

## Description

The solid dry mixture based on Portland cement, exfoliated vermiculite and fiber fillers.

The coating is formed when the mortar mix, obtained by adding water to the dry mixture at the construction site, is applied onto the structure. Applied with positive temperatures on primed matt surfaces.

## Recommended use

The coating is intended for constructional fire protection of metal structures and equipment inside heated and unheated premises with non-corrosive and low-corrosive environment and relative air humidity not more than 75 %.

Designed for use in industrial, civil and public buildings. It is used as a top coat or intermediate fire-proof layer. It is applied on primers ISOLEP-primer, ISOLEP-mastic, VINICOR-061, EVOPOL-12 and GF-021 (ГФ-021).

To impart decorative properties and increase resistance against aggressive vapor and gases application of top coats: VINICOR-62, POLYTON-UR or POLYTON-UR (UV) is required.

Application of paint in coating systems with primers and topcoats other manufacturers - by agreement with VMP.

## Certification

State registration certificate RU.66.01.40.015.E.000356.12.12 dated 12.12.2012;

Conformity certificates № C-RU.ПБ34.B.01107 dated 01.03.2013, № C-RU.ПБ34.B.01743 dated 03.06.2015, № C-RU.ПБ34.B.01763 dated 09.07.2015 (mandatory certification).

## Technical data

	<b>Coating</b>
Appearance	Absence of cracks, delaminations
Color	grey
Density	350-600 kg/m <sup>3</sup>
Compression resistance	0.2-0.9 MPa
Thickness of one dry layer on application	15 mm, not more
	<b>Mortar mix</b>
Flowability (GOST 5802)	4-8 cm
Pot life at (20±2)°C	60 minutes
	<b>Dry mixture</b>
Color and appearance	grey, free-running mixture
Bulk density	200-400 kg/m <sup>3</sup>
Moisture content, mass	5 %, not more than
Mean consumption per 1 mm	0.42 kg/m <sup>2</sup>

## Surface Preparation

PLAMCOR-4 shall be applied onto the primer, free from dust and moisture; all damaged areas of the primer must be repaired.

## Application

To prepare the mortar mix dry mixture with water: 1 part of dry mixture to 1.1-1.5 parts of water by weight, dry mixture shall be fed into the specified quantity of water while mixing. The added water shall comply with the requirements of GOST 23732 and its temperature shall be from plus 5 to plus 30 °C.

To prepare the mortar mix one shall use mechanical mixing devices excepting mixers (drill extensions). The obtained mortar mix shall be agitated till the homogeneous mix is reached for 5-8 minutes, after that the mixture shall be held for 10 minutes and mixed again for 1-2 minutes.

Pot life of the mixture is 60 minutes.

To apply coatings with the maximum thickness at a layer one shall reduce to a minimum water content in the mortar.

It is recommended to apply the coating PLAMCOR-4 at an ambient air temperature from plus 5 to plus 35 °C and relative air humidity not more than 75 %. Within the subsequent 10 days one shall take measures to provide for the following temperature and moisture content conditions: air temperature not less than 5 °C and air humidity not more than 75 %.

Apply the fire-proof coating in one or several layers depending on the required fire protection degree manually (using spatula) or using mechanical plastering machines CO-150 or CO-42 type or similar units.

Thickness of one layer shall be not more than 15 mm. If the recommended thickness of one layer is considerable exceeded, defects (in the form of cracks) may appear on the dry coating.

Thickness of the wet coating shall be checked with a pointed-end measuring stick (graduation scale not more than 1 mm). When drying the volume does not change.

The process provides for natural drying. The coating is repairable. The time of drying of interlayers is not less than 12 hours. The full hardening time is not less than 28 days, in the course of hardening one shall refrain from exerting mechanical action.

When drying and hardening are completed the coating may undergo mechanical treatment and may be covered with enamel.

To prevent deterioration of the coating in operation at the objects with increased vibration load on-to the carrying metal structures, in the seismically hazardous zones and generally to prevent cracking or deterioration of the coating due to unintentional mechanical damage it is recommended to perform armor-ing using reinforcing glass-fiber net with mesh cell up to 60 mm, which is used for cement covering. Such reinforcing net shall be placed at some distance from the protected surface not exceeding the half of the design thickness of the fire-proof coating.

Peeling or break-off of the coating from the protected structure without disturbance of its integrity do not result in reduction of its fire-retardant performance.

## Coating service life

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PLAMCOR-4 as part of a coating system with a primer and topcoat has a service life of at least 40 years when used in premises of the category placement 3 and 4 in accordance with GOST 15150.

PLAMCOR-4 retains its fire retardant efficiency for the specified period in the absence of mechanical damage and constant moisture condensation. After the end of the specified period coating must be re-placed with complete removal of the existing layer and subsequent its restoration.

## Storage and handling

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The dry mixture shall be stored in closed dry premises in bags put on each other. The height of the storage pile shall not exceed 1.5 m.

In the course of loading, unloading, handling or transportation one shall observe precaution measures ensuring safety of the packaging with the material and exclude its humidifying. The dry mixture shall be transported in the covered means of conveyance.

The guaranty period of the dry mixture in the sealed packaging of the manufacturer shall be 18 months from the production date if the storage and transportation conditions are observed.

## Precautions

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When working with the material one shall observe the requirements of GOST 12.3.002-2014 and safety measures as specified on the package label.

One shall use personal protective equipment (goggles, rubber gloves and respirators).

The fire-proof coating is classified as a non-flammable and non-combustible material.

*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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