

STABITERM-400

Water-based fire protection coating for structural steel

Technical requirements TU 2310-015-25572341-2014

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Product characteristics

The fire retardant composition "STABITERM-400" is a two-component system consisting of a base (component A) and a hardener (component B). The action of the composition is based on the creation of a heat-insulating layer on the surface of the metal structure as a result of applying, as well as the intumescence of the applied coating under the influence of high temperatures (+ 200 ° C) and the formation of a porous heat-insulating layer.

Usage

For fire protection of metal building structures (beams, girders, columns, etc.), located both indoors and outdoors, and related to industrial and civilian type of buildings and structures for various purposes in the conditions of the macroclimatic areas of moderate climate, moderate and cold climate, cold climate.

Color

Grey

Package

Component-A: standard «euro-bucket» 20л, with cap «crown» or «hoop», product net weight 20 kg.

Component-B: canister 5л, with plastic cap, product net weight 5 kg.

Fire retardant efficiency

Fire-resistance rating, at 500°C* of steel surface	Metal thickness specified (U/A m ⁻¹), mm**	Paint consumption*, kg/m ²	Thickness of dry coat, mm
45 minutes	2,4 (417)	1,64	2,33
45 minutes	7,8 (128)	0,45	0,64
60 minutes	2,4 (417)	2,5	3,55
60 minutes	10,0 (100)	1,06	1,5
90 minutes	4,1 (244)	3,32	4,72
90 minutes	5,8 (172)	2,8	3,97
90 minutes	10,0 (100)	2,13	3,02
120 minutes	5,8 (172)	4,2	5,96
120 minutes	10,0 (100)	3,03	4,3

* Time to reach the critical temperature of 500 °C on the sample, min, not less than

** Inverse value of U/A m⁻¹

*** Paint consumption is indicated excluding process losses

Physical and Chemical parameters

The appearance of the coating	After drying out, the surface is uniform, without craters, pores and wrinkles.
Dry residue, not less %	99,0
Drying time at 20±2° C and relative humidity 65±5%, per hour, maximum	1
The ratio of components (by weight)	4A : 1B
The viability of the mixture, min, at 20°C	2
Drying time to degree 3, at 20 ° C, not more	15 - 30
Cure time until ready for use at 20 ° C, hour, not less	24
Adhesion of the coating by the method of separation, MPa, not less	2,0
Resistance to static effects of water, hours, not less	24
Coating operating temperature	from -40°C to +60°C

USAGE GUIDELINES

Surface preparation

Before applying the coating surface elements must be pre-cleaned from dirt, rust, scale, water-soluble salts, old paints, etc. Cleaning from contaminants and detergent solutions prior to mechanical cleaning (GOST 9.402 requirements) and primed.

Applying

The application of the fire retardant composition "STABITERM-400" is carried out at temperatures from +5°C to + 40°C and relative air humidity up to 80%. Before starting work, drums with the components of the fire protection system (base A and hardener B) and the equipment for application must be kept in a heated room for at least 24 hours at a temperature not lower than + 25°C and a relative humidity of not more than 80%.

Before use, the components of the fire-retardant system must be thoroughly mixed separately throughout the entire volume for 5 minutes by mechanized method or within 15 minutes by hand, hold before application for at least 5 minutes. The ratio of components A : B is 4: 1 by weight. The recommended thickness of the "wet" first layer is 600-800 microns. The thickness of the next layers can be up to 1500 microns. Under normal conditions (air temperature 20°C and relative humidity 60%), the interlayer drying time is 60-120 minutes. The time for complete stabilization of the coating under normal conditions is 24 hours. Technological losses depend on the method of application, parameters of the treated surface, application conditions.

Tool cleaning

Instruments and equipment used in applying the system are recommended to be washed with xylene or methylene chloride, without waiting for the system to dry.

Forwarding and Storage

Transportation and storage of components A and B is carried out at temperatures from 10 °C to 35 °C. During storage and transportation, it is necessary to avoid exceeding the upper temperature threshold. Storage at temperatures below 10 °C may lead to crystallization of the product.

Packed transportation by any type of covered transport that ensures the safety of products, in accordance with the rules for the carriage of goods in force for each type of transport.

Storage in hermetically sealed containers in warehouses on racks or pallets away from heat sources, in conditions excluding exposure to sunlight and exposure to atmospheric precipitation.

The guaranteed shelf life of the fire retardant system is 6 months from the date of manufacture, in full compliance with the conditions of transportation and storage

Safety rules

Paint work in a well-ventilated area. When working, use personal protective equipment (rubber gloves, goggles). If the system gets on the skin, wipe this place with a cloth moistened with a solvent, and then wash it with warm water and soap. Keep out of the reach of children. Do not allow residues of flame retardant to sewage.