STABITERM-209

Water-based fire protection coating for structural steel
Technical requirements TU 2316-013-25572341-2014

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PRODUCT DESCRIPTION

Weatherproof fire retardant paint for metal structures Stabiterm-209 is a complex multicomponent system, which is a suspension of intumescent fillers, various functional additives and pigments in solvent-dispersed film-forming agent. The effect of the coating is based on the intumescence of the applied coating under high temperature exposure and the formation of a foamed heat-insulating layer.

INTENDED USES

The coating is designed to improve fire resistance of structural steel and is intended for use in construction of various purposes (ambient air temperature from minus 35°C to 50°C) and moderately aggressive operating environment. Meets the fire safety requirements as specified in GOST R 53295.

PACKAGING

25 kg steel drum, net weight 25 kg

CERTIFICATES

Certificate of conformity for fireproof efficiency C-RU.ПБ34.В.00253.19 dd 17.09.19г., C-RU.ПБ34.В.01818 dd 09.10.15г. and НСОПБ.RU.ЭО.ПР009.Н.00007 dd 07.03.18
A quality passport is issued for the each consignment of goods confirming the main physical and chemical characteristics.

PHYSICAL AND CHEMICAL CHARACTERISTICS

Color	Grey, shade is not standardized
Coating external appearance	Smooth matt without pores and cracks
Volume solids	No less than 72%
Touch Dry at temperature (20±2)°C and relative humidity (65±5)%	No more than 3 hours
Density, kg/m3	1,20 – 1,30 kg/m^3
Thinner	xylene, toluene

FIRE-RESISTANCE RATING

Fire-resistance rating, at 500°C* of steel surface	Metal thickness specified, mm**	Mass factor, m^{-1}	Paint consumption, kg/m^2***	Dry film thickness, mm
45 minutes	3,4	294	1,11	0,74
60 minutes	3,4	294	1,80	1,20
90 minutes	5,8	172	2,22	1,48
120 minutes	7,2	139	3,18	2,12

* 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

USAGE GUIDELINES

SURFACE PREPARATION

The coating should be applied onto a clean, dry and primed steel surface. Type of primer should be agreed with NPF "Fire Protection Laboratory", LLC. Priming of a surface is made according to technical documents of the primer manufacturer.

When applying fire protection coating on primed steel structures, the condition and quality of the previously applied anti-corrosion coating should be checked and its service life is determined. The primed surface should be without blisters, cracking and peeling. When defects are detected, the anti-corrosion coating should be repaired. The same material should be used for repairs. Primed surfaces should be cleaned of dirt, dust and degreased with organic solvents if necessary. If the use of solvent is unacceptable, use solutions of detergents.

APPLICATION

Fire protection coating is applied on the steel structures surface with a brush, roller or airless spray-painting equipment.

Application temperature range -15°C to +40°C, relative humidity up to 80% and a steel surface temperature at least 3°C above the dew point.

Before use, stir the paint thoroughly, additional stirring is recommended during application to increase fluidity. If necessary, it can be diluted with xylene to a working viscosity (no more than 2% by volume). The solvent should be added in small portions with constant stirring.

Recommended thickness of the first layer is 400 microns. The thickness of the next layers can be up to 1200 microns. The paint is applied in 1-4 layers. Interlayer drying time is 3-6 hours under normal conditions (air temperature 20^0C and relative humidity 60%), with a decrease in temperature and an increase in humidity, drying time may increase. The time for complete drying of the coating under normal conditions is 72 hours. Technological loss of paint during application depends on the method of application, parameters of the treated surface, application conditions.

The paint should be applied on a dry surface, evenly layered, without gaps and sagging, with careful processing of the joints of individual parts. The paint is applied on the surface of steel structures using a brush, roller or airless spray-painting equipment.

The preferred application method is airless application using airless spray equipment with a plunger pump type: “GRACO”, “WAGNER”, “Contractor”.

Recommended airless spray-painting equipment parameters:

- nozzle size - 0.019–0.033 inch, spray angle is selected depending on the geometry of the surface to be painted;
- diameter of the supply hose at least 3/8 inch
- hose length max. 30 m
- working pressure when applying 180–220 bar

EQUIPMENT CLEANING

Clean all equipment immediately after use with clean water. Without waiting for the paint to dry.

TRANSPORTATION AND STORAGE

Transportation and storage temperature range -15°C to +40°C.

Transportation in packaged form by any kind of transport, ensuring the safety of products, in accordance with the rules of carriage of goods, applicable to each mode of transport.

Store in hermetically sealed containers in warehouses on racks or pallets away from heat sources, in conditions that exclude sunlight and exposure to

precipitation.

Guaranteed shelf life of fire protection paint - 12 months from the date of manufacture in full compliance with the conditions of transportation and storage.

SERVICE LIFE OF COATING. SAFETY PRECAUTIONS

The guaranteed service life of the fire protection coating under the conditions of open air - up to 20 years, indoors – up to 25 years subject to the conditions of application and operation.

Painting works to perform in accordance with the requirements of GOST 12.3.035 “Occupational safety standards system. Construction. Painting. Safety requirements"

The area in which painting works are conducted should be provided with supply and exhaust ventilation.

Fire protection paint is a low toxic, fire and explosion-proof material. During storage and use does not emit hazardous substances, does not irritate the skin and mucous membranes.

When applying, personal protective equipment should be used.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If the product gets on the skin, wipe with a cleaning cloth, then wash with soap and water.

Fire protection coating for steel structures "Stabiterm-209" is intended for professional use only!

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