

# BRONYA<sup>®</sup>

## SUPERFINE HEAT INSULATION

### INSTRUCTION for applying a one-component fire retardant BRONYA FIRE PROTECTION NORD

#### Properties and scope:

Fire retardant for metal structures Bronya Fire protection NORD is designed to increase the fire resistance of metal structures in construction, and provides fire resistance of load-bearing metal structures R45, R60, R90 and R120 (45, 60, 90 and 120 minutes, respectively) in accordance with GOST R 53295-2009.

#### Consumption of fire retardant to achieve fire resistance

45 minutes (bw 2.4 mm) with a dry layer thickness of 1.2 mm. is 1.69 kg / m<sup>2</sup>.

60 minutes (bw 2.4 mm) with a dry layer thickness of 1.53 mm. is 2.15 kg / m<sup>2</sup>.

90 minutes (bw 3.4 mm) with a dry layer thickness of 2.0 mm. is 2.82 kg / m<sup>2</sup>.

120 minutes (bw 7.2 mm) with a dry layer thickness of 2.3 mm is 3.2 kg / m<sup>2</sup>.

#### Consumption is shown without losses.

When heated, vapors and inert gases are released, which do not support and slow down combustion, and a protective replacement of oxygen by gases and vapors is formed. Thus, flame retardants not only block thermal convection at the protected surface, but also significantly reduce and suppress the flame. At the same time, the top layer of the protected surface thickens, cokes and acquires the required rigidity. The composition contains fire retardants, specialized blowing agents, foam layer stabilizers and heat-resistant substances based on a polymer binder.

#### Mode of application

The fire retardant is supplied ready to use. The treated surface of metal structures must be dry and free from all types of contamination: rust, grease, dust, etc. In accordance with the technical regulations, it is necessary to apply Bronya Fireproofing NORD on primed surfaces (primer GF-021 or analogs).

The fire retardant compound is applied to metal structures that are not subjected to subsequent mechanical processing, leading to the removal of the fire retardant coating. Stir the composition thoroughly before use; additional stirring is recommended during application to increase fluidity. Dilution with Orthoxylene solvent is allowed.

The processing of metal structures is possible with a brush or using an airless spray apparatus with a plunger pump. The minimum ambient temperature when applying the composition is  $-35^{\circ}\text{C}$ . The composition is applied in 2-3 layers (depending on the required dry layer thickness) with intermediate drying between layers for 5-6 hours. Full drying time is 24 hours. The full set of physical and mechanical properties of the coating occurs within 7 days. Within 30 days from the moment of application with pressure on the coating with a force of  $5\text{ kg/cm}^2$ , the formation of dents is allowed.

### **Transport and storage**

It is transported by all types of transport, in accordance with the rules for the carriage of goods at an air temperature of  $-35$  to  $+35^{\circ}\text{C}$ . Store the composition in an airtight container in a dry, heated warehouse, away from fire, heating devices, protecting it from moisture and direct sunlight.

### **Manufacturer's warranty**

The guaranteed shelf life of the composition is 12 months from the date of manufacture, subject to the safety and tightness of the container.

The service life of the coating (without a protective layer) indoors at an ambient temperature of  $-40$  to  $+50^{\circ}\text{C}$  is at least 30 years. subject to the conditions of application and operation. The service life with a protective layer in the open air of a moderate macroclimatic region UHL 4 according to method 1 (GOST 9.401) is at least 30 years; subject to the conditions of application and operation. A change in the relative viscosity of the composition and the formation of a stirred sediment during storage is not a reason for rejection if, after mixing and diluting to a working viscosity, the paint meets the requirements of technical conditions.

### **Safety requirements**

When working on the coating, use personal protective equipment:

- special clothing and footwear;
- respirators with A1 filter;
- gloves;
- open glasses with side protection.

**Any additional questions related to the use of Bronya Fire Protection NORD, you can ask our technical specialists by phone or by e-mail.**