

BRONYA[®]

SUPERFINE HEAT INSULATION

INSTRUCTIONS for the use of thermal insulation putty BRONYA LIGHT AIRLESS

***** DO NOT ALLOW FREEZING!*****

LIGHT AIRLESS BRONYA is a coating designed for thermal insulation of metal, plastic and other surfaces with operating temperatures from -60 ° C to +140 ° C (in peak short-term mode up to +150 °C). **LIGHT AIRLESS BRONYA** fits well on all types of surfaces. Insulation work can be carried out on surfaces with temperatures from +7 ° C to +120 ° C.

When working with the liquid thermal insulation coating **BRONYA LIGHT AIRLESS**, special attention should be paid to the following conditions:

1. **LIGHT AIRLESS BRONYA** cannot be frozen;
2. Before opening the container, it is necessary to ensure the integrity of the seals;
3. When preparing the material, do not mix excessively (see paragraph 2 of this instruction);
4. When preparing the material, it should not be excessively diluted with water (see paragraph 2 of this instruction).

1. Surface preparation

The insulated surface must be cleaned of dirt, rust, dust, old paint, crumbling elements, etc. Especially pay attention to the fact that there is no "loose" rust in the form of a "fungus" on the metal, which, after applying the **LIGHT AIRLESS BRONYA**, will peel off from the metal together with the coating. To clean the metal surface from rust, use metal brushes or abrasive wheels with the removal of a loose layer of rust until a metallic sheen appears. The surface cleaned from rust is treated with a rust converter, if necessary, it is maintained for 2 hours. New metal surfaces may require the removal of preservatives.

The finished surface must not contain crumbling elements, must be dry (including not condense), must not contain oily and greasy elements, must not be excessively plastic and glossy. If the **LIGHT AIRLESS BRONYA** is supposed to be used on

ferrous metal surfaces, with an operating temperature of up to +140 ° C, then the surface must first be dust-free and degreased, covered with either an ANTIKOR BRONYA modification (preferably), or treated with VL-02 or VL-023 primer (in 1-2 layers in accordance with the instructions for the primer). If the coating is supposed to be applied to the surface of non-ferrous metal, then it is necessary to treat the surface mechanically to remove gloss, dust, degrease, treat with adhesive primer VL-02 or VL-023 (1-2 layers). If the **LIGHT AIRLESS BRONYA** is supposed to be applied to elements of concrete, brick, wood and similar surfaces, it is necessary to: remove loose areas, embroider cracks, remove oily inclusions, clean concrete from cement "milk", repair the surface, including inter-brick seams to reduce material consumption and recesses deeper than 5-7 mm, cement-plaster compositions. Surface cleaning perform with a sandblaster, metal brush or abrasive wheels to remove gloss on the surface and remove falling off and crumbling structural elements. After mechanical treatment of the surface, a thorough dust removal should be carried out using brushes or blowers. After that, it is necessary to rinse with water to remove dirt, remaining dust, etc. After complete drying, it is necessary to prime with deep penetration acrylic primer. To apply to a part of the enclosing structures of buildings and structures made of vapor-permeable materials (concrete, brick, etc.), it is necessary to use the BRONYA FACADE modification.

2. Preparation of the insulation coating BRONYA LIGHT AIRLESS

BRONYA LIGHT AIRLESS is ready for use, it must be mixed, if necessary, by adding a little distilled water, immediately before applying to a pre-prepared surface. The amount of water depends on the temperature of the base of the application, the temperature and humidity of the surrounding air, subsequent operation and other factors. When applied to a surface with a temperature from +7 ° C to +80 ° C, the amount of water added to the material can be no more than 3%, 5%, 10% when applied with a brush and no more than 3% when applied with equipment (airless spray apparatus). By when applied to a surface with a temperature above +80 ° C, it is necessary to first bring down the temperature by applying several primer layers of **BRONYA LIGHT AIRLESS** material diluted with 20-50% distilled water according to the scheme specified in paragraph 3 "Coating". For detailed recommendations, contact the nearest representative office or the manufacturer*. With a long shelf life inside the container, stratification into fractions is allowed. When mixing, use a drill with a bladed nozzle or a mixer (check with a representative of the **Bronya** in your region for recommendations on the choice of equipment). Using vertical movements of the blade so as to immerse the thickened part in the liquid, turn on the drill and slowly start rotating the blade, mixing the clots with the liquid. Stir until the product becomes a homogeneous thick mass. Approximate mixing time - with a mixer for 3-8 minutes, manual mixing for 7-10 minutes. If the task is to eliminate condensation, "fur coats" of frost - the material is applied with minimal addition of water and the maximum period of interlayer drying.

3. Coating application

It is recommended to work with a spatula, a soft brush with long natural bristles, an airless sprayer or plaster machines (check the recommended brands and models of airless sprayers, as well as recommendations for setting them up with a representative in your region). You can apply the coating on small surfaces or areas with a complex configuration using a soft brush. Surfaces with an area of 100 m² or more can be treated with an airless sprayer with a working pressure of no more than 60-160 bar. **(IMPORTANT!!!)** Suitable for works with airless sprayers Graco Marc V, Graco Marc 7, Graco Marc 10 with nozzle 321. For recommendations on the selection, configuration and work with airless sprayers, check with the manufacturer or the nearest representative of **BRONYA LIGHT AIRLESS**. Also see additional tech. a map for working with airless sprayers). An insulating coating can be applied to a surface with a temperature from +7 ° C to +120 ° C and relative humidity not higher than 80%. For better adhesion of the material to the treated surface, it is recommended to apply a primer layer on the prepared surface with a liquid (like milk) composition of the material diluted with 20-50% distilled water. The period of complete drying of one layer of coating with a thickness of 1 mm is at least 24 hours at ambient temperature above + 7 ° C and humidity is not above 80% during the entire drying time, i.e. within 24 hours. The next layer can be applied only after the previous layer has completely dried - after 24 hours under the specified conditions. The thickness of the layer of 1 mm can be determined by a thickness gauge of the "paint comb" type, the material consumption of 1.1 liters per 1 m² (approximate consumption when applying a brush coating on a flat surface) or the thickness of the "optical density" of the material (so that the substrate does not shine through the material). The material consumption is affected by the type of surface and the method of application. Total coating thickness and the number of layers is determined by the thermal calculation, recommendations of certified regional representative offices of production. For better adhesion of the material to the treated surface, it is recommended to apply a primer layer on the prepared surface with a liquid (like milk) composition of the material diluted with 20-50% distilled water. The period of complete drying of one layer of the coating with a thickness of 0.4-0.5 mm is at least 24 hours at ambient temperature above + 7 ° C and humidity not higher than 80% throughout the drying time, i.e. within 24 hours. The next layer can be applied only after the previous layer has completely dried - after 24 hours under the specified conditions. Applying layers of more than 1 mm in one pass is unacceptable, since this leads to the formation of a moisture-proof film on its surface, which in turn prevents the complete evaporation of moisture, which will lead to the cancellation of thermal properties and deformation of the coating. When the material is applied to a surface with a temperature from +80 ° C to +120 ° C, the material boils and very quickly it "seizes", so the material must be diluted with water. It is recommended to pre-prime the surface with a 20-50% aqueous solution of the material. important! When

applying **LIGHT AIRLESS BRONYA** on a surface with a temperature above +80 ° C, the thickness of the maximum layer in 24 hours should not exceed 1 mm. The hotter the application surface, the more the material is diluted. Diluted the material is applied with quick short movements, with such application the layer will be very thin. The drying time of each such layer is at least 1 hour. Such layers are applied until the applied material ceases to boil on the surface, but not thicker than 0.5 mm. After that, let it dry for 24 hours. Then the material is applied according to the usual scheme – with the addition of 3% to 5% distilled water in layers up to 0.5 mm with interlayer drying for 24 hours. The thickness of the layer of 0.5 mm can be determined by a thickness gauge of the "paint comb" type, the material consumption of 0.55 liters per 1 m² (approximate consumption when applying a brush coating on a flat surface) or the thickness of the "optical density" of the material (so that through the material is not the foundation was shining through). The material consumption is affected by the type of surface and the method of application. The total thickness of the coating and the number of layers is determined by the thermal calculation or recommendations of certified regional representative offices of the production.

4. Safety precautions when working with BRONYA LIGHT AIRLESS

4.1 Individual protection.

Under normal conditions, the product is safe. If the room is well ventilated or work is carried out outdoors - respirators are not required. In a room without ventilation - use standard respirators. To protect the eyes, use chemical safety glasses. There must be access to running water for eye washing. To protect the skin, use chemical gloves and protective clothing.

4.2 Critical situations.

If the product gets into the eyes, immediately rinse the eyes in running water for 15 minutes. If irritation persists, consult a doctor. In case of contact with the skin, rinse with soap and water. Dirty clothes should be washed during repeated use. In case of contact with the respiratory system, get out into fresh air. The product in the liquid state does not ignite. In case of fire of structures or structures on which the coating is applied, use water, foam, dry chemicals and carbon dioxide during extinguishing. In case of spillage of the product, use any absorbent material such as sand, soil, etc. or rinse with plenty of water.

5. Storage and transportation conditions of LIGHT AIRLESS BRONYA

Storage of the BRONYA material is carried out in a tightly closed container at a temperature from +5 ° C to +30 ° C, air humidity no more than 80%, away from direct sunlight. Transportation is carried out by any type of transport at a

temperature above +5 °C With a distance from direct sunlight. The packaging of the cargo for transportation must ensure the correct installation of containers and the safety of containers. It is not recommended to install more than 3 buckets in a 20-liter container or 5 buckets in a 10-liter container in height on top of each other without additional packaging during transportation! Violation of the integrity of the container leads to damage to the material. It is not recommended to install when transporting more than 3 buckets in a 20 liter container or 5 buckets in a 10-liter container in height on top of each other without additional packaging!

Violation of the integrity of the container leads to damage to the material.

In case of non-compliance with the instructions for applying and storing the material, the manufacturer is not responsible for the quality of the coating.

You can read this instruction on our website www.nano34.ru, in the Technical Documentation section.