

**SPRAYED WATERPROOFING
AND PROTECTIVE
MATERIALS**



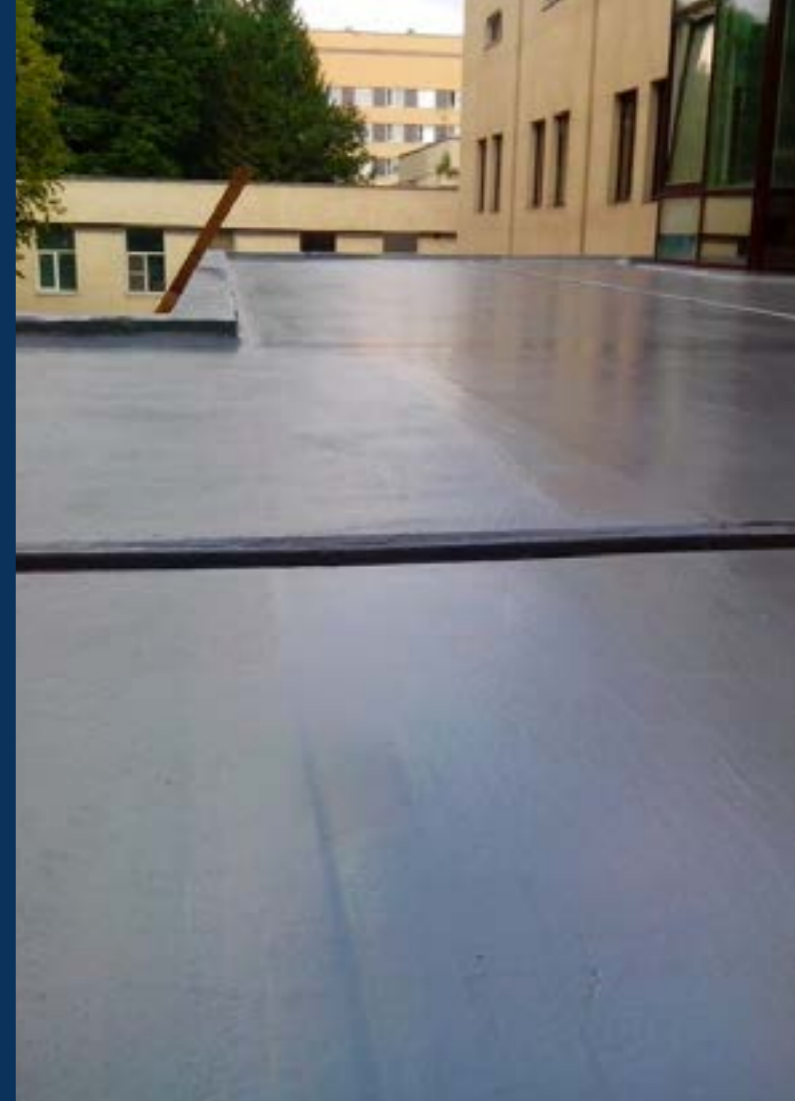
«GOODWILL» CORPORATE GROUP

– developer and manufacturer of innovative roofing,
waterproofing, and corrosion-resistant coatings.

All materials are developed in the «GOODWILL» research laboratory and manufactured in-house in Saint Petersburg, Russia.

All products are certified; their properties and characteristics are confirmed by tests carried out by leading specialized national institutions in the Russian Federation.

The «Goodwill» manufacturing quality management system is confirmed by the international certificate «ISO 9001:2015.»



The common features and advantages of all types of «Goodwill» products are as follows:

1. Fully polymer mineral and block-copolymer composition without non-durable components and fillers;
2. Unique characteristics and high technical data of finished coatings;
3. Simple and easy-to-use: both by means of a manual tool and serial blowing equipment;
4. Products can be used in a wide range of temperature and humidity on different working surfaces, regardless of season and climate zones;
5. High operating speed with minimum labor effort.

«GOODWILL» materials form a jointless membrane with excellent adhesion to any foundation. This excludes any leaks, and in particular cases of surface deformation. It protects against corrosion, mold, and fungi and is resistant to temperature changes such as snow and ice. Additionally, it protects against exposure to ultraviolet radiation and is ideally suited to a variety of climate zones and conditions.

Extremely easy-to-use and is a durable composite polymeric product used for all types of waterproofing, anti-corrosive treatment and has the following main features:

13 advantages and distinguishing features:

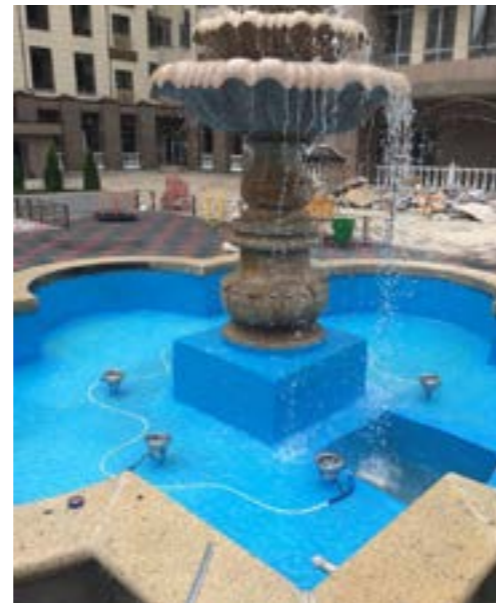
1. **Single – component composition**, delivered ready for immediate use;
2. **Jointless coating** forms an integral membrane, including junction areas;
3. Work can be performed **at low temperatures** (down to – 20°C);
4. **No need to fully dismantle the existing coating** (applied over an old material) which consequently eliminates the risks of flooding the building between coats;
5. **Highly adhesion** throughout the coating area (up to 2.3 MPa – 23 kgf/cm²), which makes it impossible for moisture to flow below the roof cladding;
6. **Adhesion to a wet foundation** – with an adhesive strength of up to 18 kgf/cm²;
7. **Easy to repair** and determine possible mechanical damage to the coating;
8. **Highly elastic** – totally resistant to vibrations and structure movements;
9. **High operation speed**: up to 1,000 m² of coating by one team (2 – 3 persons) per one work shift (for a mechanized method of application);
10. **Exceptionally resistant** to weather conditions (operation at temperatures ranging from – 50°C to +215°C, flexibility maintenance at temperatures of down to – 50°C) and ultraviolet radiation;
11. **«Cold» application method** that does not require heating the material and using an open flame;
12. **Environmentally friendly**: after hardening, the material is not toxic and does not release any harmful substances;
13. **Functional aesthetic qualities** – any color is available, including light colors which reduce the heat load on the roof during the warm season.

Main physical and technical characteristics:

Data is confirmed based on the results of the tests performed by the State Unitary Enterprise «NIIMosstroy»

Seq.No	Names of main indicators	Regulatory standard based on GOST 30693 and Terms of Reference 5775-002-90772002-2013	Actual value
1	Appearance	Without any visible foreign matter, impurities, and particles	Without any visible foreign matter, impurities, and particles
2	Non-volatile matter content,%, no less than	50	60
3	Strength of adhesion to a concrete foundation, MPa, not less than - concrete - wood - metal	0,2 - 0,6	2,3 2,2 2,2
4	Nominal breaking strength, MPa (kgf/cm ²), not less than	0,6	14,3 (143)
5	Relative breaking elongation, %, no less than	300	1027
6	Radius of curvature with a rounded radius (5mm±0.2mm) at a temperature not higher than 300°C	Minus 30	Minus 50
7	Water absorption after 24 hours, % by weight, no more than	2.0	1,6
8	Waterproofing qualities with 10 minutes at a pressure of 0.5 kgf/cm ²	Signs of water penetration must be absent	No signs of water penetration
9	Thermal resistance at a temperature of no lower than 1000°C during 2 hours	Bulges and drips must be absent	No bulges and drips

- Packaging: metal European bucket – 20kg with a cover adapted to a hoop
- Guaranteed storage life – 12 months
- Temperature range for storage and transportation from -40°C to +50°C



The copolymer composition is applied using a «cold» procedure; the composition is hardened by evaporating the solvent with a dry residue of at least 60%. Any color is available.

The material has been successfully tested for the waterproofing of vertical concrete surfaces and roofs of buildings and structures, as well as an antirust compound for the metal surfaces of structures and tanks.

Material characteristics are significantly higher than those set by the applicable GOSTs and terms of reference; the material has been certified.

	Rolled materials	Polymer and bituminous emulsion	Polyurea	PVC membrane	DELS-VR
Jointlessness	Joints are present	No joints	No joints	Joints are present	No joints
Adhesion	No adhesion over the entire foundation	100% adhesion over the entire foundation	100% adhesion over the entire foundation	No adhesion over the entire foundation	100% adhesion over the entire foundation
Work in severe weather conditions	Work complexity at subzero temperatures	Only positive ambient temperature	Only positive ambient temperature, work complexity under high humidity conditions	Positive ambient temperature	Ambient temperature from -40°C to +80°C, at a relative humidity of up to 100%
Application to a wet foundation	No	No	No	No	Yes
Repair capability	Difficulties when determining leaks, application of an open flame for repair.	Complex, special equipment is required for repair.	Complex, special equipment is required for repair.	Difficulties when determining leaks, special equipment is required for repair.	Simple. One-component material ready-to-use
Elasticity -50°C	No. Fragile material	Low	Low	Low	High
Resistance to ultraviolet radiation	Low, 2 – 4 years	Low, 2 – 3 years	High	High	High
Work performance speed	Low, 150-200 sq. m, by a team of 3 people per shift	High, up to 1000 sq. m, by a team of 3 people per shift	Medium, up to 500 sq. m, by a team of 3 people per shift	Medium, up to 500 sq. m per shift	High, up to 1000 sq. m, by a team of 3 people per shift
Work performance method	Manual. Work with the use of an open flame.	Mechanized with the use of unique application equipment	Mechanized with the use of unique application equipment	Mechanized with the use of unique mounting equipment	Manual / Mechanized with the use of serial 1-channel equipment One-component material
Safety	Work with the use of an open flame.	Without the use of an open flame. Use of unique equipment	Without the use of an open flame. Use of unique equipment	Without the use of an open flame. Use of special equipment	Without the use of an open flame, provided that it is not necessary to use special equipment
Flammability	G4	G4	G2	G3- G4	G1
Environmentally friendly	Low Oil Products	Low Oil Products	High after polymerization	High	High after polymerization
Durability	Low, 2 – 3 years	Low, 3 – 4 years	High	High	High, at least 25 years
Manufacturer	Russia	Imported/Russia	Imported	Imported/Russia	Russia
Color	Black	Black	Black	Limited choice	Any

PA-RUS



A polymer waterproofing material with a bituminous binder intended for waterproofing all types of roofing. Repairs roofing works of any degree of complexity, as well as waterproofing foundations, basements, retaining walls, poles, and other structures buried in the ground.

Distinguishing features:

- high, dry residue;
- efficient and high quality jointless coating formed;
- resistant to ultraviolet radiation;
- high chemical resistance to acid and alkaline environments;
- durable;
- high levels of extensibility and mechanical strength;
- excellent adhesion to any foundation;
- it can be applied in winter.



PA-RUS forms a solid polymeric jointless membrane:

1. With the adhesion of the coating over the entire area, excluding the flowing of moisture under the membrane, even in case of mechanical damage;
2. Absolutely resistant to aggressive atmospheric influences: moisture, ultraviolet radiation, temperature extremes, acidic environments.

Main physical and mechanical characteristics:

Nominal strength at a temperature of +20°C:	7.1 MPa
Adhesion strength to a concrete foundation:	1.8 MPa
Waterproofing a membrane with a thickness of 2mm at a pressure of 0.3 MPa within 24 hours:	no signs of water penetration
Water absorption within 24 hours at a temperature of +20°C, not more than:	0,06 %
Frost resistance (radius of curvature), no less than:	-45 °C
Relative elongation at a temperature of +20°C:	630 %



System intended for integrated waterproofing of concrete surfaces.

It is used for waterproofing concrete surfaces of built-up and in-situ reinforced concrete structures of all types.

- It creates a waterproof layer of the concrete surface;
- It prevents the penetration of moisture under pressurized filtration;
- It makes the mixing of fresh concrete better by preventing the rapid evaporation of moisture;
- It increases the durability and frost resistance of reinforced concrete;
- It provides the better stability of reinforced concrete structures with respect to corrosive acidic and alkaline environments.

The product is a 2-layer system that consists of two separate components for lamination:

1. **FARGOTECH® Penetrant:** the operating principle is the deep penetration in the mass of reinforced concrete to form a composite organic and mineral hydrophobic complex tightly closing concrete micro pores and ensuring the creation of a durable moisture-proof layer;
2. **FARGOTECH® Sealant:** penetration and hardening of the finishing component ensures the tight closing pores and micro cracks of reinforced concrete and forms a dense and flexible hydrophobic film on the foundation surface.

The combined effect of the two-layer system intended for penetrating waterproofing and water-repellency treatment of reinforced concrete ensures extremely high water-repellent performance indicators of the material.

Advantages of using the material:

- ease and simplicity of work – the principle “apply-and-forget”;
- the possibility to work at subzero temperatures and high efficiency regardless of environmental conditions;
- workability and low overall cost of the application process; it is possible to use both the manual instrument and any serial spraying plant;
- low final cost of waterproofing treatment.

Main physical and technical characteristics:

Indicator name		Characteristics or standards	Test method
Film color	Component 1	Maroon	Visually
	Component 2	Transparent, with a yellow tinge	Visually
Film appearance	Component 1	Smooth matte surface free of foreign matter	Visually
	Component 2	Smooth glossy (lacquer) surface free of foreign matter	Visually
Covering capacity expressed in terms of a dry film, ml/sq.m, not more than	Component 1	500	Pursuant to GOST 8784-74
	Component 2	500	Pursuant to GOST 8784-74
Relative viscosity according to the viscometer VV-246 with a nozzle diameter of 4mm at a temperature of (20.0±0.5)°C, seconds, no less than	Component 1	At least 15	Pursuant to GOST 8420-74
	Component 2	At least 25	Pursuant to GOST 8420-74
Non-volatile matter content, %.	Component 1	25.5	Pursuant to GOST 17537-72
	Component 2	37.0	Pursuant to GOST 17537-72
Time of drying to degree 3 at a temperature of (20.0±0.5)°C, hours, no more than	Component 1	2	Pursuant to GOST 19007-73
	Component 2	4.5	Pursuant to GOST 19007-73
Film strength under bending, mm, at least	Component 1, 2	5.0	Pursuant to GOST 6806-78
Resistance to the static influence of water at a temperature of (20.0±2)°C, hours, at least	Component 1, 2	240	Pursuant to GOST 9403-80

Jointed polyurethane sealant.

- It contains neither solvent nor water. It can be applied in winter at temperatures of down to -20°C;
- Fireproof, nontoxic. Eco-friendly. Its distinctive feature is the high adhesion to any surfaces;
- Finished coating is resistant to ultraviolet radiation and totally unsusceptible to aggressive environments. The surface remains flexible at temperatures of down to -50°C. Operating time depends on climatic conditions and is at least 10 years. Temperature range during operation is varied from +230°C to -70°C;
- Polymerization time is 5-8 hours. Packaging: plastic bucket - 12kg and canister - 2kg;
- Applied with a spatula or brush.

Application areas:

- Sealing inter-panel connections, window openings, folded joints, arrangement for expansion joints;
- Internal waterproofing of residential and non-residential premises with high humidity (shower baths, sanitary facilities, laundries, etc.), used roofing with finishing coat (asphalt, tile); treatment of junctions and transitions of vertical and horizontal surfaces, as well as shaped parts on roofing;
- Sealing of junctures for various shaped parts on roofing with a waterproofing carpet (chimney pipes, vent pipes, drain sinks, etc.);
- Sealing of folds and paint repair on metal roofing.

Synthetic polymeric sprayed material family.

It is a two-component composition of polyurethane block copolymers which gives the finished coating unique strength, as well as adhesive and plastic characteristics. The high rate of hardening without the emission of volatile substances during the process expands the range of temperature and humidity when working. Suitable for application both by hand and using «cold spraying» by means of equipment.

Main advantages of the material that belong to the family TITAN II:

1. High operating speed - up to 1000 m² per day, using the resources of one team of 2-3 people;
2. Wide temperature operating range: from -60°C to +230°C;
3. Excellent adhesion to any foundation: 7.5 MPa ~ 10 MPa;
4. High strength of the finished coat: from 50A to 90A according to the Shore Scleroscope;
5. High elasticity of the coat: tensile modulus from 100% to 700%;
6. High tensile strength: up to 50 MPa;
7. High water resistance of the finished coat: water resistance – no more than 0.1%;
8. High chemical resistance to solutions of acids, alkali, and salts;
9. High resistance to refined petroleum products: oxidized and non-oxidized hydrocarbons, as well as solvents;
10. High abrasion resistance of the finished coat;
11. High resistance to UV radiation;
12. Available in different color schemes.

Main characteristics:

- Hardening time: from 1 to 3 hours;
- Tensile strength: 40 MPa ~ 50 MPa;
- Hardness according to the Shore Scleroscope (A): 50 – 90;
- Elongation before breaking: 100% - 700%;
- Water absorption - less than 0.1% - 0.4% within 24 hours;
- Water resistance under a pressure of 0.3MPa – complete;
- Heat resistance - no less than +200°C;
- Glass transition temperature -80°C;
- Flexibility - no cracks at temperatures of up to -75°C;
- Adhesion to concrete: 4.1 N/mm² - 5.5 N/mm²;
- Adhesion to steel 5.9 N/mm² - 6.3 N/mm²;

Protective varnish based on polyethylene copolymer.

Application

The varnish based on polyethylene copolymer with the addition of aluminum powder is applied:

- in complex chemically resistant coatings with enamel or separately;
- for the prime coating and spackling of protected structure surfaces;
- as a modifying component for mastic compounds;
- to manufacture polymer-bituminous compositions in order to arrange monolithic coatings;
- to protect urethane-foam surfaces from the influence of ultraviolet radiation;
- to manufacture non-roll roofing and to repair roof cladding with concrete and reinforced concrete foundations;
- to ensure protection against corrosion and atmospheric influences for metal and concrete structures, foundations and other building structures (columns, floor slabs, and ramps) in different climatic zones;
- to protect pipelines, as a final component of the coating;
- to protect reinforced concrete tanks for any aggressive and non-aggressive liquids.



Properties:

Appearance	Homogeneous silver liquid
Non-volatile matter content, %, at least	15 – 18
Relative viscosity according to the viscometer VZ-246 with a nozzle diameter of 6mm at a temperature of (20.0±0.5)°C, seconds, within the limits of	18 – 80
Drying time to degree 2 at a temperature of (20.0±2)°C, hours, no more than	5
Complete drying time at a temperature of (20.0±2)°C, hours, no more than	8
Water content	No more than 0.1%

Application notes

- Before painting, surfaces must be carefully cleaned of grease, dirt, old peeling paint and varnished coating and dried;
- The varnish is applied to the prepared surface by means of airless spraying (hydraulic spraying is allowed), as well as by brush or roller;
- Before applying the varnish, one must thoroughly mix it. The number of protective layers is determined based on the surface condition and the requirements for its protection;
- Interlayer drying time for the varnish is 3 hours. The final curing of the entire coating before operation is at least 12 hours. Varnish consumption for one-layer of coating is from 100g/m² to 125g/m². The recommended thickness of one layer is 25µm-35µm;
- Painting must be performed pursuant to GOST 12.3.035 at a relative humidity of 65%±5% and a temperature of 5°C or higher.

Storage

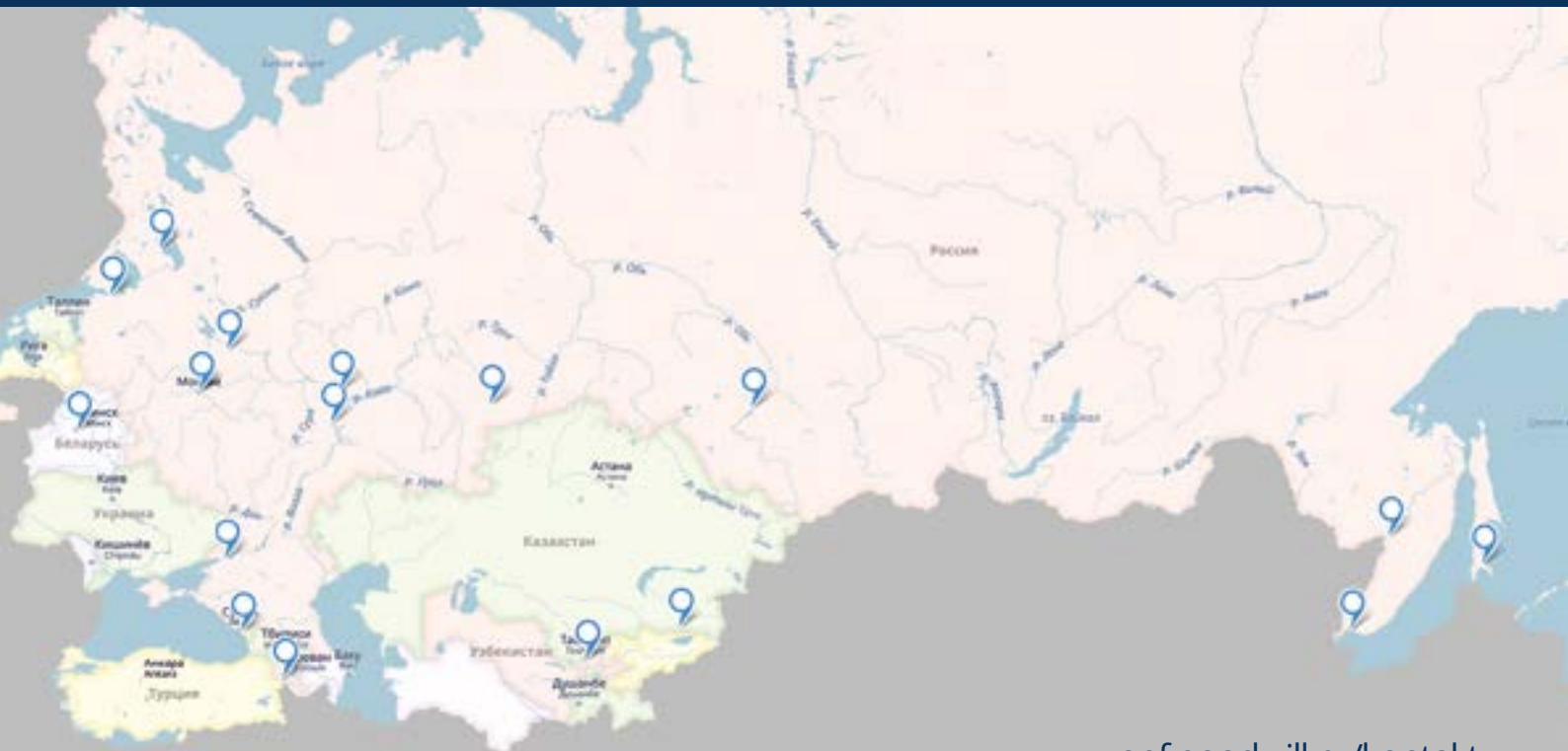
The varnish must be stored in a package in closed warehouses at an ambient temperature from -40°C to +40°C. It can be stored in a packaged form on a planned site protected against direct sunlight.



«GOODWILL» group
is a full-fledged member of the
«Russian Builders Association».

www.a-s-r.ru

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