Acrylic enamel for wood and metal



Specification

The product is distinctive for its whiteness degree. It does not become yellow with time. It is quick-drying. The enamel has high resistance to weather effects, moisture, and temperature fluctuations. Applied enamel forms a solid, elastic coat, which can resist mechanical loading and intensive multiple washing.

Sphere of application

It is intended for decorative and protective coating of wooden surfaces (furniture, doors, windows, etc.), primed metal, mineral surfaces (plaster, concrete, brick), primed or previously coated elements of heating systems. It is intended for interior and exterior works.

Technical data

Consumption standard of 1 layer	80-125 ml/m^2, depending on the type of the surface and way of application.
Thinner	Water. Maximal dilution of 10 % of the total weight is allowed.
Application	Apply with a brush, a roller or a spraying gun.
Drying period (23 °C, 50% RH)	2 hours. Drying period depends on the temperature, air humidity and thickness of coat. Thick coat, low temperature and high air humidity prolong drying period.
Solids content (DSTU ISO 3251)	42±2 % (Midnight sky, Water melon, Ripe cherry, Cappuccino, Royal green, Burgundy, Blue horizon, Plum). 45±2 % (Chocolate, Antracite, Sea green, Sapphire, Walnut, White (glossy), Lime, Spring grass, Mocha) 48±2 % (Mint, Rose, Lavender, White coffee, Vanilla, White (silky-matt), Ashy, Ivory, Sky blue)
The degree of milling (SSU ISO 1524)	About 5 μm
Density (DSTU ISO 2811-1)	1.11 - 1.17 g/cm^3 (Sapphire, Walnut, Chocolate, Ripe cherry, Midnight sky, Plum, Water melon, Spring grass, Sea green, Antracite, Lime, Cappuccino, Royal green, Burgundy, Mocha, Blue horizon). 1.2 - 1.23g/cm^3(White (glossy and silky-matt), Lavender, Ashy, Rose, Ivory, Sky blue, Mint, White coffee, Vanilla).
Hardness (DSTU ISO 1522)	> 25 sec.
Gloss (DSTU ISO 2813)	Glossy. Minimal 60 GU at 60° Silky-matt. > 10 GU at 60°
Wet-scrub resistance, microns (DSTU ISO 11998)	up to 1 (after 200 cycles)
VOC content (ISO 11890)	< 15 g/l, depending on the enamel color
Weathering and light fastness	The coating keeps protective and decorative properties in moderate continental climate not less than 7 years. * The lifetime of the coating depends on the preparation of the surface and conditions of the product application and exploitation of the applied coating.
Warranty period	36 months from the date of manufacturing (at the temperature from +5 °C till +35 °C)
Packaging	0,75 l, 2,3 l
Color	anthracite, Water melon, white (base A), vanilla, spring grass, white coffee, lavender, lime, sea green, mint , sky blue, midnight sky , walnut, Ashy, rose, sapphire, plum, ivory, ripe cherry, chocolate.
Gloss	glossy, silky matt.

** - The complex coating consists of 1 coat of quick-drying anticorrosion primer TM Maxima and 2 coats of Acrylic enamel for wood and metal TM Maxima. The total thickness of the dry film is not less than 160 microns. Testing was carried out on the prepared steel plates at weather conditions according to DSTU ISO 2810 and in laboratory conditions under artificial sunlight radiation effect (viscometer), according to DSTU ISO 16474-2.*

Composition

High-quality acrylic dispersion, pigments, water, additives.

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Tinting

A white enamel is intended for use as a ready-to-use product and as a base for tinting in pastel, light colors.

Tint it manually with concentrated pigments Farbex Color, other waterborne tinting pastes or in a tinting machine according to NCS color rate, etc. When you use other products, tinting machines, or catalogs for tinting, make sure that they can be used for exterior works and elements of heating systems. We recommend a trial tinting and coating.

Use for finish coat the product of one batch to avoid differences in color shades. It concerns both: the enamel and the colorant. The joint surfaces shall be also coated with the product of one batch. In case, you use the product of different batches, mix them before use.

Make a trial application on a small area to check if an actual color corresponds to the desired one.

We do not recommend diluting tinted enamel when applying the finish coat.

Insignificant deviations in technical data for the product are possible after tinting.

A hint: When you choose the color, take into account the lighting of the premise if interior works and lighting and location of the surfaces towards the sun and their structure if exterior works. The warm and cold light of the premise and shadowside location of the surfaces outdoors, inclined surfaces, elements with different roughness, and daylight period will affect the perception of the same color.

Application instruction

One of the conditions of the desired result of coating is following the directions about the application of a paint product and preparing the surface.

1 Surface preparation

The surface shall be dry, and thoroughly cleaned till hard base surface from dust, dirt, mould, corrosion, oil and other contaminations and peeled paint coatings. They use mechanical way (a scratcher, a brush), thermal way (hot air fan, infrared radiation) or chemical way (paint removals). We recommend avoiding cleaning ways, which can damage the base surface.

Metal surfaces shall be treated manually with mechanical tools (min degree St2) or with abrasive jet cleaning (min degree Sa2½) according to DSTU ISO 8501-1. Degrease the surface with universal thinner TM Maxima.

Wooden surfaces shall be polished manually or with mechanical tools. Then remove abrasive dust. If there is wood resin on the surface, remove it mechanically (with a spatula or a scratcher). In case, the wood is infected with a blue stain, mould or fungi, remove infected areas first with mechanical facilities, then treat the wood with antiseptic for wooden surfaces TM Farbex. Defected surface shall be corrected with Putty TM Farbex. The corrected surface shall be polished and then dusted off. Wood humidity before coating shall be less than 20%.

Mineral surfaces shall be hard without fragile elements and edges. Glue, plaster or putty, applied on the surface shall be completely dry and suitable for coating with waterborne products. Remove thoroughly all contaminations: remove salts from the surface mechanically and obligatory remove areas infected with mould or fungi. First, remove infected areas mechanically and then treat them with antiseptic for mineral surfaces TM Farbex. Defects on the surface, that appeared after removal, shall be corrected with Plaster TM Farbex. Polish the plastered surface and then dust it off.

Hard surfaces previously coated with paint products shall be polished and dusted off. It is necessary for getting better adhesion with a paint product.

Test all applicable products (a primer, a glue, an antiseptic, etc.) on small spots of the surface, following technical directions or the specialist's advice.

2 Priming

To provide the best possible wear resistance the surface shall be properly treated before coating:

Metal surfaces shall be priced with anticorrosion quick-drying primer TM Maxima;

Wooden porous surfaces shall be treated with acrylic wood-protective primer TM Maxima. ATTENTION! The primer raises the wood fibers on the surface, that's why polish the surface before applying the enamel.

Mineral surfaces shall be treated with a primer-concentrate 1:10 Aqua Primer TM Maxima. Depending on the type of surface dilute the primer according to the directions.

Tough types of OSB, fiberboard, chipboards, wallpapers, and previous hard paint coats need no prior undercoating before applying the enamel.

Also, follow the directions on how to undercoat the construction mixtures or products. In case it is necessary call for help from the specialists from POLYSAN.

3 Applying of finishing layer

Make sure that the surface is dry enough after the surface preparation.

Stir the enamel thoroughly, filter if necessary and dilute with water. Excessive diluting spoils the quality of the coating!

Apply the enamel in 1-2 coats. The first coating is basic. After you apply the first coat, check the surface if there are uncoated areas, edges or corners left. Coat thoroughly difficult-to-reach areas. Apply each subsequent coat after the previous one is completely dry but after 2

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hours anyway. Finishing coat makes the surface homogeneous, and improves protective and decorative effects. Extra porous, rough or highly contrasted surfaces demand more layers and the enamel's consumption can increase. The precise consumption is determined by a test application on a small area.

Remember! Mineral and wooden surfaces are porous materials, that's why the consumption and quantity of coats can increase.

Apply the enamel continuously in one direction with the same consumption of the product. We recommend applying from edge to edge or from corner to corner or in the limits of decorative elements continuously. When you carry out the application on large areas and/or during a long period, do not leave the container with the enamel opened for a long time.

We draw your attention, that for finish coating we recommend using the product of one batch to avoid differences in color shades. In case, you use the product of different batches mix them.

Carry out coating at the temperature of air and the surface from +10°C till +30°C and relative air humidity less than 80% (the temperature of the surface shall be more than 3% higher than the dew point). Do not apply the enamel under direct sunlight, if strong wind, frost and precipitations. After application, the surface shall not be affected by precipitations and subzero temperatures during 24 hours.

The coating achieves complete hardness and resistance to mechanical load after 28 days.

If using saturated colors (yellow, red, yellow green) the base surface, which is meant to be coated, shall be monochromatic. Otherwise, you will need to apply additional layers. Coat the base surface first with white or similar tinted pastel color to lessen the consumption of the enamel tinted into saturated color.

Acrylic enamel for wood and metal can be applied in the following ways:

Application way	Quantity of diluent	Jet size	Pressure
Airless spraying	0 – 10 %	0.017" - 0.023"	15 - 18 MPa (≈ 150 - 180 bar)
Pneumatic spraying	0 – 10 %	2,0 mm	0,3 – 0,5 MPa (≈ 3 - 5 bar)
A brush / a roller	0 – 5 %	-	-

Tools shall be those, recommended for waterborne products.

When you apply with a roller we recommend using a cuvette for the equal wetting of the material. Attention! Use a roller with a short nap for a smooth coating.

When you apply by spraying, follow the directions on how to use the equipment. We recommend airless spraying because pneumatic spraying demands diluting the paint product with the maximum recommended quantity of water. It can affect the thickness of the coating and create runs on the surface.

You must have the experience and skills to use professional tools to achieve a quality-coated surface.

We don't recommend using the enamel for floor coating (or other surfaces under intensive mechanical load)!

Do not apply on heated pipes and radiators!

After a long period of water contact (especially on horizontal surfaces), "whitening or blurring" is possible of the colored enamel. When the water dries, the color recovers.

Compatibility with other coatings

Depending on the conditions of exploitation, the enamel can be used together with various primers and finish coatings. You can find the examples of compatibility below. Ask the specialists of POLYSAN for more precise recommendations.

Previous layer – waterborne acrylic products or alkyd-based products.

Subsequent layer - waterborne acrylic products.

We recommend testing the compatibility of the products on a small area of the surface.

4 Tool cleaning

Clean tools with water after application.

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SAFETY

Do not mix with other products and (or) organic solvents! Keep in tightly closed original containers at the temperature from +5 °C till +35 °C. Keep out of moisture, direct sunlight, frost and out of reach of children. When carrying out the application use personal safety gear (work clothes, rubber gloves, a respirator and safety glasses). If applying indoors, provide a well-arranged ventilation. If skin contact, wash thoroughly with water and soap. If eye contact, rinse with plenty of running water. Consult a doctor if necessary. VOC content: cat. A/d (WB): <130 g/l. Actual VOC content ≤ 15 g/l. The product doesn't contain lead and its compounds. More detailed information is in MSDS (material safety data sheet). The product has a sanitary-epidemical conclusion of the state expertise.

ENVIRONMENTAL PROTECTION

Do not empty into drains, ponds and in soil ! Liquid rests shall be delivered to the waste drop-off point. Rests of dry products and empty containers shall be recycled as common construction waste, in accordance with the Law.

The authenticity of this information is based on laboratory tests and practical knowledge. The quality of the product completely corresponds to the demands of TU U 24.3-32318370-001:2006. As a manufacturer, the company isn't responsible for the damage caused by application, which is not in accordance with the directions. The applicability of the product for specific purposes shall be defined entirely by the consumer. Current information loses validity with the issue of a new edition.

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