



Acryl – urethane enamel Defens AK.UR-12 (2K) high quality final coating

Description

A two-component high-gloss UV- and weatherproof acryl – urethane enamel on acyclic polyisocyanate. It provides high decorative properties of the formed coating and a long service life.

Purpose and designated area

The enamel for protection and high quality finishing of metal, concrete, wood and galvanized coatings operating in difficult climate conditions. **It is used as a high quality final coating** on epoxy, zinc-silicate, polyurethane and acryl primers, so that it allows improving the external appearance and enhancing protective properties of coatings in general. It can be used as a finishing layer in anti-corrosion protection systems in accordance with the ISO 12944-5:2018 standard.

It can be applied by air or air-free methods of dispersing, as well as with a roller or brush. Due to the low toxicity of contained solvents, the enamel is easy to apply. It can be used as an independent coating on galvanized surfaces and as a final layer in preprimed systems of anti-corrosion protection, for steel surfaces exposed to mechanical or chemical effects, as well as atmospheric actions in humid climate and industrial environments.

It is recommended as a final coating with a long service life of

- railway rolling stock,
- highway transport,
- farm machinery,
- painting of bridges, steel and reinforced concrete structures,
- tankers, chemical and petrochemical industries equipment,
- harbor and dock-side installations, sea- and river going vessels, containers, etc.

Tinting is possible in any color at the customer's request according to the RAL scale.

It can be produced in aluminium filled version.

Specifications

Name of indicator and unit of measurement	Indicator value
Physical form of the coating	Self glossy or half-matt surface without any impurities, bits and pin holes
Non-volatile matter content, %, not less	55
Conditional viscosity by viscometer VZ-246 with nozzle diameter 4 mm at temperature (20 ⁰ C) , s	not less 60
Mixing ratio, by weight (A:B)	100:20
Pot life of the mixture, at (20,0±0,5)°C, hours, not less	6
Density of the mixture at temperature (20±0,5) °C, g/cm ³	1,1-1,3
Milling degree, μm, not more	25
Adhesion, points, not more	1
Flexural resistance, mm, not more	2
Impact strength, cm, not less	50
Recommended coating thickness, μm	60-100
Drying time: until aftertack at (20,0±0,5)°C, h, not more	1,5
to degree 3 at (20,0±0,5)°C, h, not more	4
Coverage rate, kg/m ² , not more	0,15

Hardness by the pendulum device TML type (pendulum A), conventional units, not less	0,45
Resistance to the exposure to: - sea water, days(20 °C,) not less - water, days(20 °C,) not less	3 7
Resistance to the exposure to water, days(20 °C,) not less	5
Approximate consumption of the material when using airless spraying equipment with a coating thickness of 60 µm, kg/m ²	0,170
Reducer	Xylele/Ethyl acetate

Requirements to the base

The metal surface should be dry, free of rust, debris, dust, oils, fats and other contaminants that may act as separators. It also should be preprinted with epoxy, polyurethane, polyester or zinc-silicate primers. Galvanized surface must be removed from dust and degreased.

Previously painted surfaces suitable for repainting. Remove impurities (e.g., grease and salts). Surfaces must be dry and clean. Old surfaces with a painting that has exceeded the maximum application time of the next coat should be ground to roughness. Damaged surface areas should be handled in accordance with accepted procedures on how to prepare the base and maintenance operations. Place and time of pre-finishing of the surface for applying the paint should be chosen so that the neat surface remains dry and clean until the next stage of painting the product.

Application

Before applying and after mixing the components, the enamel should be thoroughly mixed for at least 5 minutes until an even consistency is obtained. Apply it on the prepared base by air or air-free methods of dispersing, as well as with a roller or brush. To obtain the material of necessary application viscosity, it is possible to add the mixed solvent Defens. When working with primer enamels at low temperatures, it is recommended to use highly volatile solvents (Ethyl acetate). The surface to be painted should be dry and have a temperature of a 3 °C above the dew point. Recommended number of layers is 1-2. Perform the work control in accordance with the ISO 12944-7:2017 standard. The gloss level and final appearance of the coating depend on the application process.

Package and storing

The paint is stored in a tightly closed packaging at a temperature from 0 up to +30°C, away from moisture and direct sunlight, heat sources. Warranted storage life is 12 months from the date of production without violation of storage conditions. Slight delamination is allowed during the long-term storage, but it does not affect the quality of the material.

Tool cleaning

Work tools and facilities are washed with the solvent P-4 immediately after their usage.

Protective measures

This product is intended only for professional use in industrial facilities in accordance with recommendations given here, as well as safety directions provided to customers along with paint containers. All work, including the application and usage of the product, must comply with Health, Safety and Environmental requirements, all regional standards and instructions.

When painting use personal protective equipment, avoid of getting in eyes, respiratory tracts and on skin. Keep away from open flame.

Exception

The information given in this list is not designed to be exhaustive and any person applying the product for any other purpose not reflected in this list without receiving our written confirmation on its suitability does so at their own risk. We try to ensure that all recommendations regarding the product (in this or that list) are correct, but we cannot control the quality and condition of the surface to be painted, as well as take into account the influence of many other factors impacting on the way the product is used and applied. Therefore, if we in written form certainly disagree to do so, we are not responsible for whatever and whichever way it happens due to the product usage or for any loss or damage caused by the product usage. The information given in this list in the light of our experience and policy of continuous product development is subject to change from time to time. The responsibility of the user is to verify before applying the product that this list is currently valid.