TRIOCOAT PUR 2050

Two-component polyurethane primer-enamel

MATERIAL DESCRIPTION:

Two-component polyurethane primer-enamel containing anti-corrosion pigments, forming semi-gloss coatings.

TYPE AND RECOMMENDED USE:

Suitable for painting surfaces exposed to atmospheric and/or chemical attack: steel structures, locomotives and railcars, truck trailers, cranes, transport and road machinery, agricultural machinery, process equipment (conveyors, crushers, substations, etc.). Used as a standalone coating for galvanized and aluminium surfaces, carbon and stainless steel. The coating has excellent weather and wear resistance. Typical service of the coating — in moderate, moderately cold and cold climates, and atmospheric corrosivity up to C5, CX (GOST 34667.2 (ISO 12944-2)). May be used for operating temperatures from minus 60 to plus 120 °C.

PHYSICAL CHARACTERISTICS:

Color: According to RAL catalogue.

Volume solids: 58±5 %

Coating gloss, % (according to GOST 35094, at 45°): 37–55

Theoretical spreading rate: 0.086 l/m² at DFT 50 µm.

Coating thickness: Dry film thickness (DFT) of one coat: (50–100) µm.

Maximum DFT is 150 µm. Recommended number of coats — 1–2.

Coating thickness:

Wet and dry film thickness table

Film thickness	WFT, µm	DFT, µm
Minimum	86	50
Recommended:	103	60
	172	100

Drying time:

Drying time at DFT 60 µm								
Surface temperature	**0 °C**	**5 °C**	**10 °C**	**15 °C**	**20 °C**	**25 °C**	**30 °C**	**35 °C**
Drying to degree 3 according to GOST 19007	9 h	7 h	5 h	3 h	2 h	1.5 h	1 h	45 min
Drying to application of the next coat — TRIOCOAT PUR 2050	24 h	10 h	7 h	5 h	4 h	3.5 h	3 h	2 h

Drying time is determined by the actual DFT. The drying times given in this section are for guidance only. When assessing actual drying time, it is also necessary to take into account the presence of air flows and relative air humidity.

SURFACE PREPARATION:

The material is applied to a prepared and dry surface with a temperature at least 3 °C above the dew point. The preparation process includes the following general operations: degreasing of the surface (if necessary, with water and/or solvents (R-4, R-646)); desalting of the surface (if necessary); dust removal of the surface to degree 2 with a particle size of not more than class 2 according to ISO 8502-3. Elimination of surface defects — to P3 according to ISO 8501-3.

The preparation process includes the following additional operations:

- **for carbon steel** — surface cleaning to grade Sa 2.5 according to GOST R ISO 8501-1-2014 with a recommended roughness profile Rz (50–75) μm; during repair, local cleaning P St 3 is allowed;
- **for stainless steel, galvanized and aluminium surfaces** — treatment with light abrasive blast cleaning using a mineral abrasive, or sanding with tools and means for mechanical surface cleaning with non-metallic contact surfaces (abrasive wheels and discs, impact tool with a flexible belt structure, etc.).

On hot-dip galvanized surfaces, it is recommended to additionally apply a thin coat (DFT = (20–30) μm) of primer-enamel diluted by (25–30) % before applying the main coat.

For aluminium and galvanized surfaces, washing with fresh water or solutions of special detergents under pressure, or using brushes with non-metallic bristles, is allowed.

APPLICATION:

Material preparation:	The material is two-component and requires mixing the base and the hardener separately. Mixing ratio 9 : 1 (base : hardener) by volume, with thorough stirring to a homogeneous mass.
Pot life:	3½ h at 15 °C; 2½ h at 20 °C; 1 h at 35 °C.
Application method:	Airless spraying / Pneumatic spraying / Manual application (brush, roller).
Thinner:	Thinner TRIOSOLV 0003 (if necessary), up to 10 % by volume. For more detailed information, contact O3-Coatings.
Nozzle diameter (recommended):	.011"–.015"
Operating pressure (recommended):	(150–200) bar.
Equipment cleaning:	Thinner TRIOSOLV 0003, xylene.
Environmental parameters:	Air temperature not lower than minus 10 °C; relative air humidity not higher than 85 %. (In closed rooms, provide supply-and-exhaust ventilation in the appropriate volume for the period of application and drying.)

STORAGE:

24 months from the date of manufacture. It is recommended to store in a dry dark place in sealed factory packaging at a temperature from 0 to plus 30 °C, avoiding direct exposure to UV rays and other heat sources.

NOTE:

Small deviations of the numerical values of physical quantities are permissible.

TRANSPORT PACKAGING: Base — 20 l euro pail; Hardener — 3 l euro pail.

HEALTH AND SAFETY: Refer to the Safety Data Sheet for the material.