

# Application Manual

Product description:

See Technical Data Sheet TRIOCOR FINISH 5500



## TRIOCOR FINISH 5500

Acrylic polyurethane coating

### CONTENTS:

The Manual describe the surface preparation; the product preparation for the application; application details and equipment; storage conditions; occupational safety; fire precaution measures; environmental protection; first aid measures.

### SURFACE PREPARATION:

The product is applied to a prepared and dry surface with a temperature at least 3°C above the dew point. The process includes the following stages: degreasing of surface (if necessary); salt removing (if necessary); removing dust to dust quantity rating 2 for dust size class no higher than 2 in accordance with ISO 8502-3.

The surface should be cleaned with pressure 35 MPa by drinking water treatment, oil and grease should be removed with a thinner in accordance with GOST 9.402 – 2004. In case of the preceding coat's surface damage, defects, chips, it is necessary to restore it in accordance with the coating manufacturer approved methods.

The product is applied to a clean dry primed surface after its preparation. The time interval between the surface preparation and the application of the product is determined by the environmental conditions and the characteristics of the materials used in accordance with the manufacturer's recommendations.

If the surface is exposed to precipitation, make sure it is completely dry and repeat the surface preparation before applying the coating.

Avoid applying the product after exceeding the preceding layer overcoating interval recommended by the manufacturer. If the overcoating interval is exceeded, to ensure the adhesion with the preceding layer, roughen the surface by sweep blasting (light abrasive blast cleaning conducted at an angle of 30° to the surface and under half of the operating pressure) prior to applying the corrosion protection coating.

### PREPARATION FOR THE APPLICATION:

The product is supplied in containers: the base – 20L, the hardener – 3L.

After opening the container and before applying mix separately the base and the hardener. Mixing Ratio: 9 parts Base to 1 part Additive by volume, maintain stirring to have the wet paint as a homogeneous mixture.

**TRIOCOR FINISH 5500** is a two-pack acrylic polyurethane topcoat, with a volume solids of 55±5 %.

### APPLICATION:

Application method: Airless spraying / Manual application.

Thinner: Thinner TRIOSOLV 0003 (if necessary), up to 10% by volume.

For more information, contact O3-Coatings.

Diameter of the nozzle (recommended): .011 "- .015"

Operating pressure (recommended): (150-200) bar.

Equipment flushing: Thinner TRIOSOLV 0003.

# Application Manual

Product description:

See Technical Data Sheet TRIOCOR FINISH 5500



Recommended application conditions:

- ambient air temperature above: minus 10°C;
- relative humidity: 85% maximum;
- surface temperature: at least 3°C above the dew point;
- absence of direct contact with precipitation.

**IMPORTANT:** The application is prohibited when the above-mentioned conditions are not met.

Before the beginning of each working shift the following parameters must be monitored and recorded in the operations log:

- environmental conditions (ambient air temperature, relative humidity);
- dew point temperature;
- surface temperature;
- absence of moisture and oil contamination on the surface;
- absence of dust on the surface.

Before the application, use a thinner to clean the painting sprayer from preceding used materials. The choice of the thinner directly depends on the type of the preceding used materials. The equipment cleaning procedure must be also conducted at the end of each working shift.

The product is applied with an airless spray equipment; it can be applied with a brush for small areas and areas of difficult access.

When applied with an airless sprayer, the recommended wet film thickness (WFT) per one airless spray coat is 91 microns, that is equal to 50 microns dry film thickness (DFT).

The drying times for **TRIOCOR FINISH 5500** with the dry film thickness of 50 microns is shown in Table 1.

**Table 1**

Drying time for the 50 microns DFT								
Substrate temperature	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C
To touch	6 h	3 h	2 h	1 h	50 min	45 min	35 min	30 min
To recoat:								
TRIOCOR FINISH 5500	24 h	16 h	12 h	8 h	7 h	6 h	5 h	4 h

Drying time is thickness dependent. These figures are given as a guide only. Factors such as air movement and humidity must also be considered.

The wet film thickness control is determined by the last notch of a coating thickness gauge that touched the film. Above each notch of coating thickness gauge the difference between its length and the length of the outside base notches (zero datum reference) is indicated.

When conducting measurements, the gauge should be set perpendicular to the coated surface. After each measurement, the parts of the gauge that were in contact with the coat must be carefully wiped with a clean cloth.

The wet film thickness of the coating must be recorded.

# Application Manual

Product description:

See Technical Data Sheet **TRIOCOR FINISH 5500**



The quality control of the finished coating is done using the following characteristics:

- appearance (no sagging, cracking, peeling, etc.) – homogeneous coating;
- the dry film thickness is determined by the 80-20 rule: 80% of all measurements must not be below the thickness given in the specification (nominal thickness), 20% of the measurements must be at least 80% of the nominal thickness.

It is recommended to use coating thickness gauges with a measuring range from 0 to 5000 microns to measure the dry film thickness of the coating.

## **STORAGE CONDITIONS:**

Acrylic polyurethane topcoat **TRIOCOR FINISH 5500** should be stored in a well-ventilated dry confined space at temperatures between 0°C and +30°C in hermetic original package away from UV rays.

The shelf life of **TRIOCOR FINISH 5500** is 24 months for base and 12 months for additive if the recommended storage conditions are met. The product should be used within the recommended shelf life indicated by the manufacturer. The decision to use material that is over the shelf life is made by a committee.

## **OCCUPATIONAL SAFETY:**

### **General rules:**

Works is carried out in accordance with the requirements of GOST 12.3.002, GOST 12.3.005, GOST 12.3.016, POT R M-017.

Occupational hazards and harmful should be eliminated or reduced to acceptable levels.

When organizing and carrying out painting works, a physiologically justified work-rest schedule should be provided.

### **Qualification requirements:**

The application of the corrosion resistant coating can be conducted only by adults who are at least 18 years old that have undertaken:

- safety training in accordance with GOST 12.0.004, including occupational hygiene, fire and electrical safety;
- professional training.

The executive officers have complete responsibility for compliance with the occupational and industrial safety requirements when conducting the application works, in accordance with the requirements of SNiP 12- 03 and SNiP 12-04.

Workers must know about:

- hazards, harmful occupational factors, harmful substances in the materials that affect the air in the workplace and how they can affect the human body;
- application instructions and procedures, and requirements for the workplace maintenance;
- workplace safety guidelines, fire safety, industrial health;
- personal hygiene requirements;
- requirements for using personal protective equipment (PPE);
- first aid procedures.

# Application Manual

Product description:

See Technical Data Sheet **TRIOCOR FINISH 5500**



## Safety requirements for preparing and painting surfaces:

For any work related to the application of coatings in confined spaces, the general supply-exhaust ventilation and local exhaust ventilation are a prerequisite in accordance with GOST 12.4.021. The ventilation must ensure that the content of harmful substances in the air of the workplace does not exceed the maximum allowable concentrations, in accordance with the requirements of GOST 12.1.005, GN 2.2.5.3532.

Workers engaged in degreasing the surface, preparing and applying paintwork materials should be provided with the following personal protective equipment:

- disposable or reusable protective suit for painting which has zipper runs for length of the product, elastics at wrists, ankles and at the waist, and hood;
- rubber technical gloves according to GOST 20010-93;
- safety glasses according to GOST 12.4.253-2013 (EN 166:2002), symbol 3 or similar which has similar functional purpose;
- filter respirators which have isolating front part in form of half-mask according to GOST 12.4.296-2015 equipped with combined filter, which provides the protection from gases, vapors and aerosols according to GOST 12.4.235-2012 AZRZ (brown-white), AHRZ or similar which has similar functional purpose;
- shoes made from leather which has solid toes to avoid the injury of feet in case of the fall of a heavy object; sole must be protected with the metal plate.

**IMPORTANT:** Working without using the PPE is forbidden!

Storage of organic thinners in the workplace is permitted in hermetically sealed containers in amount that don't exceed two working shift doses.

When working with thinners observe the following safety requirements:

- use PPE for respiratory and eye protection;
- work with the activated ventilation system that ensures sufficient air exchange.

When preparing the surface, workers conducting sweep blasting must wear protective suits made from dust- proof material and helmets MIOT 49 type, use respirators PRB-5 with forced air supply.

## Requirements for handling toxic substances:

Acrylic polyurethane topcoat **TRIOCOR FINISH 5500** is produced in accordance with TU 20.30.22-038-40141638-2017 and it is recommended for use for corrosion protection in severely corrosive environments up to C5 as defined in ISO 12944-2 including industrial and infrastructure facilities.

The packaging of acrylic polyurethane topcoat **TRIOCOR FINISH 5500** must have a label with the exact name and designation of the product that it contains. Containers must be whole and have a tight-fitting lid.

In a case of an accidental spill, the spill area must be covered with sawdust or sand after ensuring respiratory protection. Contaminated thinners, sawdust, sand, rags, cloths must be collected in pails and removed to specially designated areas in accordance with the requirements of GOST 30772, GOST R 52107.

Eating and smoking are only allowed in designated areas.

# Application Manual

Product description:

See Technical Data Sheet TRIOCOR FINISH 5500



## FIRE PRECAUTION MEASURES:

Fire precaution measures during coating application works must be carried out in accordance with the technical regulations related to fire safety requirements (July 22, 2008 №123-FZ) and other regulatory documents.

The coating materials are considered to be fire-hazardous, therefore, fire precaution measures in accordance with GOST 12.1.004 and Resolution №390 "Rules of the Fire Fighting Regime in the Russian Federation" are carried out at the workplace.

**IMPORTANT:** Do not use water to extinguish fires.

When preparing the surface and when applying coating, it is prohibited:

- to smoke, make a fire, conduct welding within a radius of 25 m from the workplace and along the vertical line below and above the area;
- to heat the production facilities and protected objects with electrical appliances in a conventional

In the event of a fire, evacuate all people from the area, report the fire to the fire service, remove coating materials from the workplace, and proceed to extinguish the fire with the available means in strict accordance with the approved plan.

## ENVIRONMENTAL PROTECTION:

Coating application produces solid and liquid waste described in **Table 2**.

**Table 2**

Type of waste	Method of waste management
<u>Solid waste:</u> Packaging of the product – Containers	The packaging can be disposed of as domestic waste. Containers can be reused for technical purposes after the product remaining on the inner walls of the container has dried.
<u>Liquid waste:</u> - Thinner / flushing liquid for cleaning the painting sprayer - Remains of the product	The waste is disposed of by the product user in accordance with GOST 30772, GOST R 52107

## FIRST AID MEASURES:

### General information:

In the case of a suspected poisoning, seek medical help.

### After inhalation:

In the case of inhalation of the product, take the affected person to fresh air, keep them at rest and seek medical help.

### After eye contact:

In the case of an eye contact with the product, flush the eyes with a lot of clean running water and seek medical help.

### After skin contact:

In the case of skin contact, remove contaminated clothes and thoroughly clean the area of contact with soap and water. Do not use thinners or diluents.

### After swallowing:

In case of swallowing, keep the affected person at rest and immediately seek medical help.

**IMPORTANT:** Do not induce vomiting.