

Application Manual

Product description:
See Technical Data Sheet TRIOCOR ABRASIV 4400



TRIOTEMP 400 Zinc-silicate coating

CONTENTS:

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

SURFACE PREPARATION:

The material is applied to a prepared and dry metal surface. The preparation process includes the following operations: elimination of surface defects to P2 according to ISO 8501-3; degreasing the surface (if necessary, the recommended siren - P4); cleaning of the surface to the degree Sa 2 1/2 in accordance with GOST R ISO 8501-1-2014, the surface profile after cleaning should be of medium roughness (comparator "G"), see ISO 8503-2.

PREPARATION FOR THE APPLICATION:

TRIOTEMP 400 - quick-drying one-component material with zinc dust based on ethyl silicate with a dry residue of $60 \pm 2\%$ by volume, not recommended to use thinner.

The material is delivered in buckets of 10 liters.

The material is one-component, requires careful mixing before application.

To avoid settling of zinc dust, the material should be mixed during operation often enough.

Application method: Airless spraying.

Thinner: Not recommended. For more information, contact O3 Coatings.

Diameter of the nozzle (recommended): .015"- .021"

Operating pressure (recommended): Not less than 230 bar.

Equipment flushing: Thinner TRIOSOLV 0003 (other solvents may be used as agreed with O3-Coatings).

Recommended application conditions:

- air temperature not lower than plus 5 ° C;
- Relative air humidity in the range of 50-90% (at a relative humidity below 80%, it is recommended to wet the surface to be stained about 1 hour after painting, and repeat the wetting after about 1 hour for several hours).

APPLICATION:

IMPORTANT: Work is prohibited if the above parameters do not match the required parameters.

Before the beginning of each working shift it is recommended to check and fix the environmental conditions (air temperature, relative humidity);

Before starting the application of the material, pass through the painting apparatus a solvent for cleaning the equipment from the previously used paintwork materials. The solvent directly depends on the type of materials used previously. It is recommended to clean the equipment also at the end of the work shift.

Apply the material by airless spraying; it is allowed to apply by brush or roller when applying the material in hard-to-reach places or on small surfaces.

The drying time for a dry film thickness of TRIOTEMP 400 60 μm is given in Table 1.

Table 1

Drying time at a DFT of 60 μm		
The temperature of the surface to be painted	5 °C	23 °C
Drying to tack	2 h	30 min
Dry before applying the next layer *		
minimum	after 7 days (at RH 90% or humidification of surfaces)	after 6 hours (at RH above 80% or humidification of surfaces)

* only for minor repairs

Before applying the next layer make sure that dried primer layer TRIOTEMP 400 withstands the light rubbing of the rag moistened in MEK (ASTM D4752, MEK resistance, (4-5) points).

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Materials suitable for galvanized surfaces are recommended as the subsequent layers.

Control of the thickness of the wet layer is carried out by the "comb" on the last tooth, touching the paint. Above each comb tooth is the size of its clearance in microns from the "basic" teeth (from 0). When performing measurements, the comb must be installed perpendicular to the plane of the painted surface. After each measurement, the surface of the "comb", in contact with the paint, must be thoroughly wiped with a clean rag.

The thickness of the wet coating layer should be fixed.

Quality control of the finished coating is carried out according to the following characteristics:

- Appearance (there should be no streaks, cracking, peeling, etc.) - homogeneous coating of gray color;
- The dry film thickness is determined by rule 80-20:

80% of the measured thickness should be not less than the thickness specified in the specification (nominal thickness), 20% of the measured thickness should be at least 80% of the nominal thickness.

IMPORTANT: Do not apply the next coat until the required coating thickness is achieved.

To measure the thickness of the dry coating film, thickness gauges with a measuring range of 0 to 5000 µm are recommended.

STORAGE CONDITIONS:

Zinc-silicate coating **TRIOTEMP 400** is recommended to be stored in a dry dark place in a sealed original package at a temperature from plus 5 ° C to plus 30 ° C, avoid direct exposure to UV rays and other sources of heat.

Shelf life of **TRIOTEMP 400** see date «Use before» on the label.

The material should be used within the manufacturer's recommended shelf life.

The decision on the use of material with a shelf life of more than recommended by the manufacturer is taken by the commission.

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:

The executive officers are held responsible for complying 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.

Safety requirements for preparing and painting surfaces:

All works related to the use of paintwork materials in the premises should be carried out with the general exchange of supply and exhaust and local exhaust ventilation in accordance with GOST 12.4.021. Ventilation should ensure the content of harmful substances in the air of the working area, not exceeding the maximum permissible concentrations in accordance with the requirements of GOST 12.1.005, GN 2.2.5.1313.

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Workers engaged in degreasing the surface, preparing and applying paintwork materials should be provided with the following PPE: special protective clothing, rubber gloves in accordance with GOST 20010-93, safety glasses according to GOST R 12.4.230.1, filter respirator RPG-67 (A) according to GOST 12.4 .004.

Storage of organic solvents in the workplace is allowed in hermetically sealed containers in an amount not exceeding two-shift rate.

When working with solvents, observe the following safety requirements:

- use respiratory equipment and eyes;
- work with the included ventilation system, which ensures air exchange of the required multiplicity.

When preparing the surface, workers conducting abrasive blasting must wear protective suits made from dust-proof material and helmets MIOT-49 type, use respirators PRB-5, PRM-62 with forced air supply.

Requirements for handling toxic substances:

ZINC-silicate coating TRIOTEMP 400 is manufactured in accordance with TU 20.30.12-108-40141638-2018 and is recommended for use in the anticorrosive protection of various engineering structures, facilities, civil and industrial construction structures.

The container containing TRIOTEMP 400 must have a label with the exact name and designation of the material contained in it. The packaging must be complete and have a tight-fitting lid.

In case of accidental spillage of paint, cover the strait with sawdust or sand, before protecting the respiratory system. Polluted solvents, sawdust, sand, rags and rags should be collected in buckets and removed to specially designated places in accordance with the requirements of GOST 30772, GOST 30773, GOST 30774, GOST R 52107.

Eating and smoking are allowed only in specially designated places.

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 for coating application and when applying coating, it is prohibited:

- smoking, making 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 way.

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.

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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.