

RUSTON® 517

PROTECTION COATINGS

Description:

Rust is a significant issue in marine construction, industrial plants, and repairing industries, causing damage to tanks, bridges, vehicles, machinery, and more.

Traditional methods for rust removal include the use of strong acids, which pose safety hazards and damage metal surfaces, and sandblasting, which is effective but costly and environmentally challenging.

A new technology involves chemical reactions to transform rust into a corrosion-inhibitor material, known as rust transformers.

PROTALL has developed an efficient rust conversion technology through the chelation reaction between RUSTON®517 and rust, forming a rust-inhibiting compound. This process provides an excellent surface for primer application, offering a more effective and environmentally friendly solution to rust-related challenges.

This product conforms to company specification No.53010 as per ministerial decree No. 181/1996

Features:

- Efficient conversion of rust in one easy step
- Safe to use on metals
- Cost efficient compared to conventional sand blasting
- Easy to use with a few simple steps. No need for professional or special equipment.

Physical Properties:

Color	Clear Brown liquid
Initial boiling point	100°C
Flash Point	34°C
Volatiles Content by volume	85% ±2
Specific Gravity	1.05 ± 0.05
Coefficient (water/oil)	>1
pH	<1
Vapor Density (air=1)	>1
Rate of Evaporation (ether=1)	<1
Theoretical Spreading Rate	18 - 22 Sqm/Liter/Coat (The Actual coverage depends on substrate nature and preparation & method of application)
Drying Time	18 – 24 Hours When relative humidity is higher than 50%, double the required time. Drying times listed may vary depending on temperature, humidity, film build, color, and air movement.

Application Conditions:

Temperature: 10 to 30°C (ideal 20°C ± 5°C). Relative humidity: Ideal between 15 and 55%, maximum 85%.

Maintain these conditions during the application and the following 24 hours.

Low temperature, high humidity, thick films, or poor ventilation extend drying time.

Surface Preparation:

Scrape off loose flaking rust and peeling paint. Flush with an appropriate solvent to remove oil and dried salt residue. If necessary rinse with water.



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Application Procedure:

Step 1: Apply RUSTON®517 with stiff brush, roller, or by spraying.

Step 2: Allow to stand 18-24 hours, for the product to fully react with rusted area a blue-black color signifies the reaction has occurred.

Step 3: When the reaction is complete, the surface must be thoroughly rinsed with water to remove all the un-reacted RUSTON®517. Paint applied to the Un-rinsed surface will have poor adhesion. To get good paint adhesion to the treated surface, it must be rinsed. If during the rinsing step, the blue-black coating is rinsed off, the reaction is not complete. Do not proceed. Before applying water to the entire surface, test a small area to make sure that reaction is complete. If it is not complete, an application of low-pressure steam for 30 minutes over the entire surface should complete the reaction.

Step 4: The resulting coating is a corrosion - inhibitor. However, because the coating is very thin, additional protection is needed, particularly outside where it will be quickly eroded by the elements. After rinsing, wait at least 12 hours before painting. Since the treated surface has corrosion inhibiting properties, the metal is protected against further corrosion until the paint is applied. The surface should be painted within one week after treatment.

If applied over paint, non-iron surfaces or surfaces not having rust, no reaction will occur. The product will only work where rust is present. This means it can be used on painted surfaces with spotty rust without destroying the surrounding paint.

The appearance of a blue-black film in the rusted area is a positive visible sign that rusting has stopped, and the surface is protected from further rusting.

In areas where this film is protected from the atmosphere additional protection may not be necessary. For exterior application the surface is protected from flash rusting, but the coating will be easily worn away and should be protected by a primer (PROTALL 1620) or Epoxy topcoat (COUPON KS16) for long lasting protection.

Application Tools:

Roller	Brush
	Recommended

Shelf Life & Storage Conditions:

Keep in a dry and ventilated area, between 10 and 30°C away from direct sunlight, heat sources or freezing temperatures.

Under such conditions, unopened containers may be stored up to 12 months from manufacturing date.

Disposal:

Clean up any minor spills and spatters immediately with water, as well as all painting tools and airless equipment. More serious paint spills should be contained and removed with inert absorbent material. Dispose of contaminated absorbent, container, and unused contents in accordance with local regulations.

Health & Safety Precautions:

Please observe the precautionary notice displayed on the container. Use under well-ventilated conditions wearing suitable protective clothes. Sanding and grinding dusts may be harmful if inhaled.

FIRST AID TREATMENT:

In case of skin contact, wash thoroughly with plenty of warm soapy water. For eye contact, flush with plenty of water for 15 minutes and get medical attention immediately. If you experience difficulty breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If swallowed, do not induce vomiting, get medical attention immediately.