# Rust converter primer "Ferum-3"

(A patent of Ukraine)

Rust converter primer "Ferum-3" is a new generation product, has many advantages in contrast to existing similar products.



#### General characteristics:

- Acid-free rust converter primer "Ferum-3" designed for chemical conversion of rust thickness up to 0.4 mm in the basis for the painting, which greatly enhances the adhesion of coatings and which contains moisture-weather-protective zinc layer.
- Approximate consumption: 0.08 ... 0.12 l/m<sup>2</sup> (for surfaces with little rust for preservation prior to storage and/or surface preparation before painting). In other cases, consumption depends on the thickness of the layer of rust.

## Advantages:

- 1. Due to the absence in the rust converter corrosive acids, "Ferum-3" does not destroy the structure of the metal, which allows preserving the integrity of the metal construction or product.
- 2. Chemically converts rust into a chemically pure iron with simultaneous reception of moisture-weather-protective zinc layer.
- 3. When working with a rust converter "Ferum-3" provided visual control over the reaction proceeds. <sup>[1]</sup>
- 4. Rust converter reacts even with invisible places where can begin the process of oxidation, which allows 100% to conserve and protect the surface.
- 5. Rust converter does not react with any paints that allows safely handle the local rust, caused on the previously painted surface, and prevent further spread rust.
- 6. Rust converter does not require flushing after application, and the treated surface can be the painted without fear that the after removal of rust, it will destroy the metal or paint (which to be painted the treated surface).
- 7. Rust converter increases the adhesion of paint to the treated surface, which allows achieving high quality of painting.
- 8. After using rust converter "Ferum-3" is not required instantly painting surface, because treated surface subsequently not rusts due to the creation of protective zinc layer.
- 9. Surfaces treated with rust converter "Ferum-3" can be the easily painted even without prior priming.

### Principle of operation:

Rust converter primer "Ferum-3" has a unique organic formula, thanks to which the when processing of metal it reacts only to the molecules of rust. At the same time, it does not affecting the very structure of the metal as opposed to acid rust converters.

Rust converter creates in a processing place solid layer of pure iron and zincous protective layer resistant to weathering. As a result of action rust converter, on the treated surface creates a matt finish layer, colors blued steel, which significantly increases the adhesion of coatings and comprises layers of iron and zinc. Due to the presence of zinc layer on top of the iron layer creates additional cathodic protection of iron, which prevents under film corrosion.

Due to the presence of rust converter "Ferum-3" surfactant, increases the surface wettability and the depth of penetration and, as a consequence, the effectiveness of surface treatment (even slightly oily).

Rust converter does not react with any type of paints, that allows selectively and without damaging the paint, remove only those places where rust is apparent, and prevent its further spread.

# **Application method:**

- A pre with a stiff bristled brush remove from the surface, which will be processed rust converter, excess rust (large and/or flaking rust fraction) if there are any ("Ferum-3" is usually is able to penetrate and convert the rust thickness to 400 microns). Do not clean off all rust (to the bare metal)!
- 2. Clean the surface from dust and/or small particles of rust.

- 3. If necessary, degrease the surface. Though "Ferum-3" and contains the surface-active agents, but if the surface is heavily contaminated with oil or grease is still recommended degrease surface by an organic solvent.
- 4. With a brush or a roller, thoroughly rub in "Ferum-3" in the rust. After the reaction and drying (20-40 minutes, maximum 5-8 hours), wipe the treated surface slightly damp cloth. If necessary, the processing procedure can repeated. <sup>[1]</sup>

Undesirable apply rust converter on hot surfaces because of the rapid drying and consequently termination of the reaction.

4.1. When handling large areas and/or in industrial conditions rust converter "Ferum-3" can apply with a sprayer (with copious wetting work surface) or, if possible, by the dipping method.

#### Notes:

<sup>1</sup> If after the application and the reaction is completed (completely dry surface), the surface does not become uniform color blued steel and still contains areas of light brown or brown, it indicates that in these areas still remained unreacted (non-converted) rust. In this case, these areas must be re-applied rust converter.

<sup>2</sup> Due to the fact that rust converter "Ferum-3" interacts exclusively with hydroxides of iron (partially – with oxides of iron), not recommended to completely remove the rust.

## Packing:

Plastic bottles of 500 ml, plastic cans of 5 liters, 10 liters.

### Contact:

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