

MAGICORR SPA

Metal Surface Preparation Agent

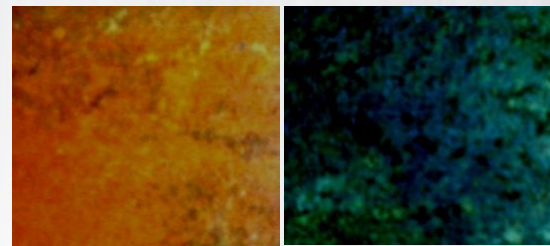


MAGICORR SPA is a specially formulated nano-technology based product to clean the mild steel surfaces by converting active rust to a passive, neutral and inert molecular complex. This molecular layer has some very useful properties like corrosion resistance, surface conditioning to accept subsequent layers and providing a good molecular level 'anchoring' effect for the subsequent layer. It is a water based, eco-friendly formulation which is an economical temporary corrosion protection, as well as a chemical surface preparation in lieu of conventional sand blasting.

ACTION MECHANISM :

MAGICORR SPA initially attacks the traces of lubricant oil film of the mild steel surface. The oil film is displaced by the active proprietary molecules and brings the oily residue on the top surface of the applied **MAGICORR SPA** film. This process facilitates the action of the other set of active molecules on the active rust on the mild steel surface.

Now, the other set of active molecules attack the active rust and convert it to an electrochemically passive, corrosion resistant layer which is merely a molecular thickness film. This film is bluish black in colour and provides a very good anchor for the subsequent paint layer. The anticorrosive property of the molecular layer provides a good short term protection to the treated surface. For indoor storage, the treated surface can retain its nature for months.



Corroded MS Sheet

Treated MS Sheet

ADVANTAGES:

- Water based eco-friendly liquid
- Ready to use product
- Simple application process
- Enhanced life of subsequent coat and hence the base mild steel
- Improved bond strength between the treated mild steel and paint/concrete
- For thin MS sheets, sand blasting can be eliminated
- Fast reaction times save on production costs
- Easy disposal of the spent product during dipping process
- No toxic fumes or volatile matter
- For mild rusting, practically no surface preparation is needed
- Economic pre-treatment for painted or concrete covered mild steel components
- Withstands temperatures from -20. C to +250. C
- Unaffected by normal bending



PHYSICAL PROPERTIES :

- Colour : Brown liquid formulation
- pH 2 ± 0.5 (Acidic)
- Density 1.01
- Non-flammable
- No polar formations or electrostatic effect generation
- Molecular film layer over the treated surface for further protection
- No peeling of the molecular film

APPLICATIONS :

- Mild steel reinforcement bars in construction: The treated bars will delay the onset of corrosion for a longer period of time and bond better with the surrounding concrete
- **Structural steel:** The frames, channels, beams etc will be protected from humidity and corrosion onset is delayed, after further painting
- **Industrial steel:** MS sheets, plates and pipes can be protected from humid climates from indoor corrosion during storage
- **Ship Yards:** MS components can be protected from an early onset of corrosion during processing and during service life after final painting
- **M. S. parts in Power plants, Industry, Dams, Bridges etc:** Piping, Vessels, Tanks, M. S. Boxes of electrical equipment etc can be protected and pre-treated to delay the onset of corrosion

TECHNICAL NOTE :

*Silica dust is generated by using blasting abrasives that contain crystalline silica (e.g., quartz rock, river sand, and beach sand) and when blasting crystalline silica-containing surfaces such as concrete or masonry, employees who breathe in fine (respirable) particles of crystalline silica, are at risk of developing silicosis, a stiffening and scarring of the lungs which can result in death. (Ref: OSHA regulations). Many European and American countries have banned sand blasting for this reason. Hence, the use of **MAGICORR SPA** is recommended to maintain occupational safety.*

MAGICORR SPA is a product, which converts mild to medium rust to inert complexes of molecular thickness layer to offer a short term corrosion protection.

It must not be construed to be a permanent protection against corrosion of treated mild steel. Subsequent treatments like paint or concrete layer are essential for getting a long term protection. **MAGICORR SPA** prepares the surface for proper adhesion of these treatments by eliminating rust and generating good 'anchors' on the treated surfaces. This action delays the onset of corrosion in the treated mild steel longer than that in the untreated mild steel. Medium to heavy rust requires proper surface preparation before **MAGICORR SPA** application. Removal of excess rust is the key factor while treating mild steel in these conditions. Correct processes with good workmanship in this respect can only ensure proper treatment in such cases.





APPLICATION PROCEDURE :

Clean the mild steel surface to be treated by removing dust, soil, oils and rust deposits. Mechanical means like wire-brushing, chiseling, wiping etc can be used to get the desired result. For more oily surfaces, a wipe by suitable solvent should suffice. Apply **MAGICORR SPA** by a soft bristled brush or by spray or by dipping. A spray equipment compatible with acids works well. For dipping application, a suitable tank should be made with HDPE lining. Metal tank must not be used for dipping application. After treatment with **MAGICORR SPA** the articles should be allowed to dry. Excess product should be allowed to drip off the treated surfaces in the tank. A bluish-black mild steel surface is visible after drying. The treatment is complete now. Subsequent treatments can be applied after 24 hours in hot climates and after 48 hours in humid/cold climates.

In case of dipping application, the pH of the solution in the dipping tank must be checked periodically, to ensure active solution quality. A pH above 4 indicates that the solution in the dipping tank has been spent and requires replacement. The spent solution can be disposed off by simply treating with lime for neutralization. The reaction products are ecologically harmless.

NOTE:

During brush application, correct movement of brush ensures proper removal of traces of rust. Ensure proper removal of loose rust before application of **MAGICORR SPA** to prevent future scaling of the surface.

If the rust remains even after the application, because of stubborn stains or difficult to access area, go for a second application. If the rust layer is thicker, repeat applications 3-4 times or more. After reaching the total depth of rust layer, the converted layer of rust will loosen from the substrate and come off like a scale. The virgin metal surface below will be available for subsequent treatment.





CAUTION :

MAGICORR SPA is a corrosive liquid. Handle with care. Wear protective gloves and goggles. Protect from splashes on skin and eye. In case of splashes, wash with plenty of water and seek medical attention immediately. In case of accidental ingestion, seek medical assistance immediately.

COVERAGE :

For mild and medium rust, coverage will be about 15-17 sq. m. per litre of **MAGICORR SPA**. For stubborn rust layers, coverage will depend upon applications required to remove and convert the rust completely.

PACKING :

5 litre & 20 litre HDPE containers.



Disclaimer: The information given in good faith is based on our in-house testing & site results. However, we do not guarantee the same as the conditions of actual use are beyond our control.

WE HAVE OUR OWN PROJECT DIVISION & UNDERTAKE LARGE PROJECTS.

SM
ADHESIVES

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