ADDAPT Chemicals BV

for tomorrow's Technology

Anticor™ RCP

Active Rust Conversion Primer

for tomorrow's World

Rust conversion primer

Anticor™ RCP is a water-based rust-conversion primer coating that combines excellent rust-converting properties with strong adhesion to metals. It consists of an acrylic resin and epoxy hybrid blend with rust-converting additives. This ready-to-use paint can be applied directly onto rusted substrates where it converts rust into an anticorrosive complex while creating a strong bond with the metal surface. The ability to apply this coating directly onto rusted surfaces makes it a time-saving solution for an endless number of applications.

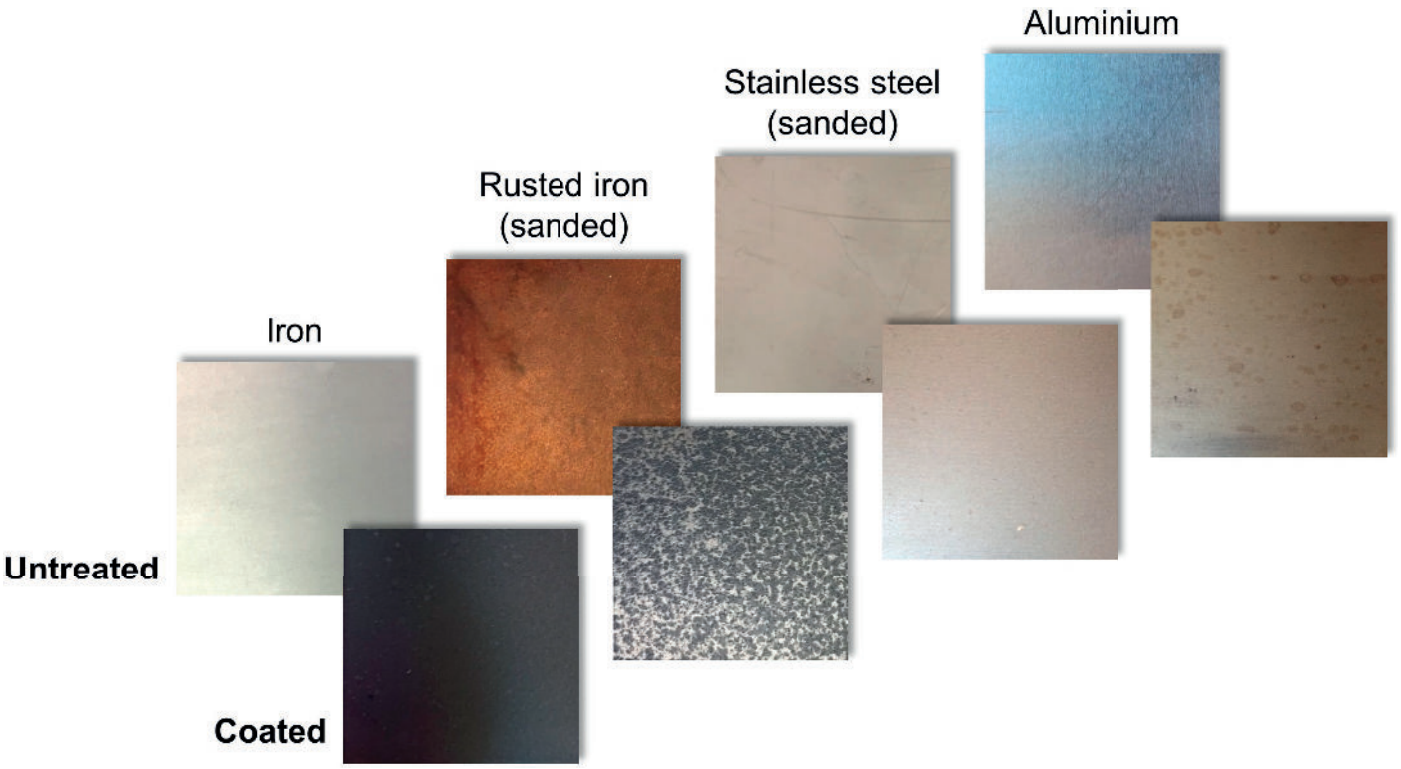
Multi-metal primer

Being an effective direct-to-metal paint system, it creates a strong primer coating on bare iron, stainless steel, aluminium, copper and various other substrates. The passivating coating blocks the access of oxygen and water to both the anodic and cathodic sites of the metal, improving overall corrosion resistance.

*No need to remove rust!**

Rusted iron panel before and after being coated with Anticor™ RCP, visualising the rust conversion process.

***No need for further sanding after removing loose rust particles.**



Various metal substrates before and after being coated with Anticor™ RCP. Iron substrates take on a blackish appearance once the conversion process is complete.

Enhanced adhesion

Anticor™ RCP's incorporated polymer blend anchors itself into rusted surfaces creating a strong physical bond. The dry Anticor™ RCP coating is durable, waterproof and provides also strong adhesion to multiple substrates due to the incorporation of ADDAPT® VeoPox™ technology.

With Anticor™ RCP **Without Anticor™ RCP**

Cross-cut adhesion test of 2k epoxy topcoat applied over rusted iron substrate, with and without Anticor™ RCP.

Rusted iron **Aluminium** **Iron**

Andreas cross adhesion test of Anticor™ RCP applied over rust, aluminium and iron substrates.

Easy recoatability

The excellent intercoat adhesion and rust-blocking properties of Anticor™ RCP provide a great basis for any topcoat where the effect of rust bleeding through is impeded. It improves the water and salt resistance of direct-to-metal coatings which makes it very suitable for marine and heavy-duty applications.

- Direct application over rusted surfaces
- Strong adhesion to multiple substrates
- Stops rust formation at its source
- Suitable for various metals
- Excellent recoatability
- Fast drying time
- Water-dilutable
- Halogen-free
- Zinc-free

Waterborne 2k epoxy

Solventborne 2k epoxy

Solventborne 1k alkyd

Cross-cut adhesion test of various topcoats applied over rusted iron substrates coated with Anticor™ RCP.

Colours

Coloured versions of Anticor™ RCP can be made by adding a colourant mixture to the Anticor™ RCP base product. Adding colour to Anticor™ RCP provides the benefits of improved coverage of the final coating system and better visibility of painted areas.

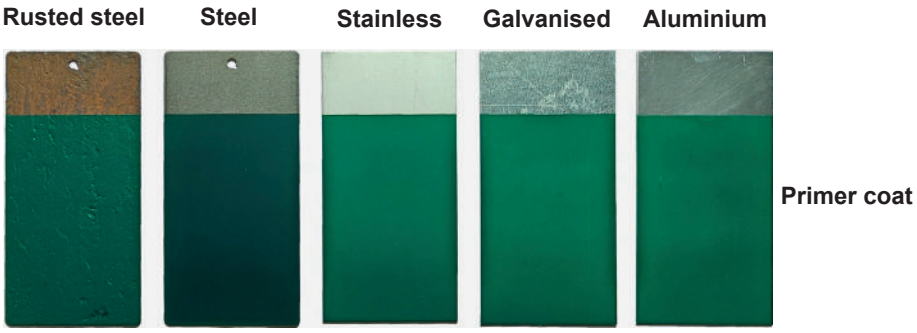
The colouring process is straightforward, requiring just two steps: first, preparation of the premix, followed by mixing in the Xfast pigment of choice and Anticor™ RCP. No milling or dispersing equipment needed; simply stirring is sufficient. This method allows for the easy creation of coloured variations of Anticor™ RCP.

Premix formulation

Component	wt%
ADDISP™ ECO	1.6
Demineralised water	64.0
Ferrocor™ Flash TN	34.0
Foamstop™ VF 35N	0.3
Biocide (optional)	0.1
Total	100.0

Add ingredients while stirring

Coloured Anticor™ RCP primer on various substrates



Coloured Anticor RCP formulations

Component	Red 3860 PR 254	Orange 2931 PO 67	Yellow 1256 PY 74	Green 8730 PG 7	Blue 7080 PB 15:3	Magenta 4790 PR 122	Red 3390 PR 101	White 0025 PW 6
Premix	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Xfast Red 3860	4.0							
Xfast Orange 2931		4.0						
Xfast Yellow 1256			4.0					
Xfast Green 8730				4.0				
Xfast Blue 7080					4.0			
Xfast Magenta 4790						2.0		
Xfast Red 3390							4.0	
Xfast White 0025								4.0
Anticor™ RCP	90.0	90.0	90.0	90.0	90.0	92.0	90.0	90.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Add ingredients while stirring

Application guide

Typical uses
Designed as a rust-inhibiting acrylic primer and converter for marine environments, heavy industry, and other rusted or non-ferrous metallic surfaces.
For use under dry or damp conditions on steel structures difficult to prepare with traditional standards. Anticor™ RCP is specially formulated for ballast tanks, cofferdams and other voids, superstructures and decks as well as general maintenance of all rusted surfaces.

Outstanding characteristics
The extraordinary wetting, penetrating and converting properties provide a means of reinforcing and neutralizing surface rust – this in turn ensures the adhesion of subsequent coatings.
Anticor™ RCP provides excellent adhesion to a wide variety of substrates. No surface anchor profiles are required for complete adhesion. The primer is hard, but flexible. It has excellent application characteristics and can be applied using conventional or airless spray equipment, brush or roller.

Top coatings
Can be over-coated with any marine coating - epoxy, acryl, alkyd, chlorinated rubber, vinyl or polyurethane coatings etc. Anticor™ RCP is a surface-tolerant coating with special properties as a repair primer. Applied on rusty steel surfaces, the primer penetrates and reacts chemically with solubilized ferric ions as well as with Fe in the rust layer, forming an extremely stable insoluble complex compound with Fe. The primer may also be applied directly to bare steel and can be applied to most types of primers and existing coating systems.
It may also be applied over damp substrates. The surface must be free from water droplets.

Surface preparation
Remove all thick rust scale, loose rust, dirt, oil, grease and other contaminants from the surface. Use power or hand tools to clean in accordance with SSPC-SP3. Flush the prepared area with plenty of fresh water to reduce salt crystals and contaminants. Flash rust or cleaned brown tightly adhered rust may be present when applying the primer.
The use of high-pressure water cleaning is excellent. Pressure washes at 5000-10000 psi, depending on the surface condition. Water-based detergents can be used. Always flush with fresh water after detergents or other degreasing agents have been used. Do not use inhibitors.

Surface steel profiles
A semi-polished surface is acceptable. If using an abrasive blast (or equivalent) use the finest abrasive grade available and work at an angle of 30–45 degrees. Anticor™ RCP will adhere to a near-polished surface. Unlike most coatings, Anticor™ RCP does not depend on a substrate's "anchoring".

Environmental conditions
Air temperature 1°C (34°F) and 40°C (104°F)
Steel temperature 1°C (34°F) and 40°C (104°F)
Steel temperature must be at least +1°C (34°F) above dew point.
RH can be up to 95%.

Application procedure
Anticor™ RCP is a stable liquid and needs no stirring before use. The primer is single-component - no mixing required. Do not dilute and never use thinner.

1. Flush equipment with fresh water before use.

2. Work primer well into the surface while wet. It dries quickly, therefore, do not rework after the drying process has started. Stripe coat all welds, rough spots, sharp edges and corners, etc. Apply a wet coat in even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes and voids.

3. Application of 1 coat of approx. 1-1.5 mil DFT for regular use, 1.5-2 mils DFT for marine/heavy usage is recommended. Allowable range is 1-3 mils DFT. Do not recoat before the coat has dried for at least 1-3 hours. The application of a wet film thickness of 2-3 mils will normally provide 1-1.5 mils DFT (regular)/ 3-4 mils wet = 1.5-2 mils DFT (marine).

4. Repair larger areas with spray. Do not overspray. Work can be interrupted with no deterioration in quality.

5. Touch up random pinholes, voids, small damages or bare areas by brush when the film is dry to handle.

6. Leave 12-24 hours to cure before applying topcoat.

CONTACT INFORMATION

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