



CCP

Excellent Anti-Corrosive Primer

What is CCP?

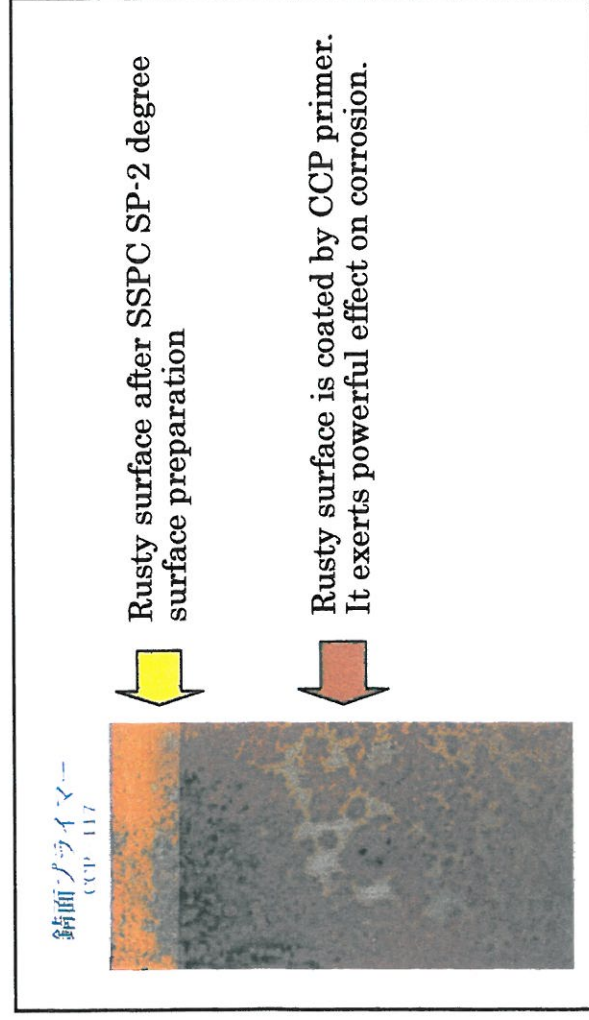
Proper surface preparation is essential for the success of any protective coating scheme.

All paint systems will fail prematurely unless the surface has been properly prepared to receive the coating. If contaminants such as loose rust, oil, grease, dirt, salts, chemicals, dust, aged coating etc. are not removed from the surface to be coated, adhesion will be compromised and/or osmotic blistering will occur in addition to premature failure of the coating in service.









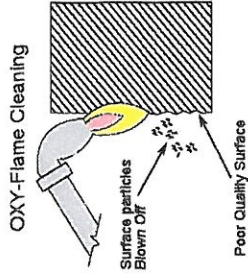

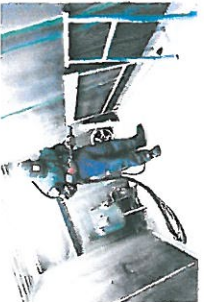
No paint system will give optimum performance over a poorly prepared surface.

Corrosion Removal is the most important factor of it, but it requires costs and advanced techniques, much time and effort.

CCP made it possible to reduce the work of surface preparation against corrosion. That is, CCP(excellent anti corrosive primer) can be used over a surface of corrosion. It exerts powerful effect on corrosion, even after SSPC SP-2 degree surface preparation(*hand tool cleaning*).



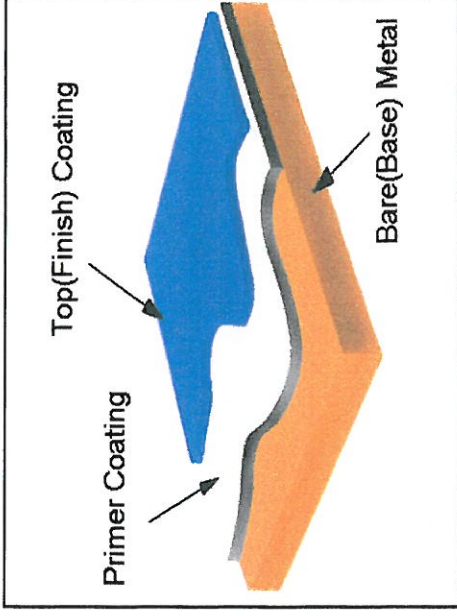
Degree of Surface preparation in SSPC Standard is as follows ;

<p>SP-2 Hand Tool Cleaning</p>	 <p>High Pressure Washing</p>	 <p>Hand Scraper</p>	 <p>Wire Brush</p>	 <p>Hand Sanding</p>
<p>SP-3 Power Tool Cleaning</p>	 <p>Power Sander</p>	 <p>Power Wire Brush</p>		
<p>SP-4 Flame Cleaning</p>	 <p>Oxy Torch</p>	 <p>OXY-Flame Cleaning Surface particles Blown Off Poor Quality Surface</p>		
<p>SP-5 White Metal Blast Cleaning</p>	 <p>Sand Blast</p>	 <p>Shot Blast</p>		

*Please refer to the attached "References" for more explanation in details about Stanard of Surface Preparation.

Layer of Coatings

What is Primer coating?



Bare(Base) Metal

To increase the effectiveness of the finish, Bare(Base) Metal must be clean prior to coating.

Primer Coating

Primer Coating is complete, preparatory coating that are applied before Top(Finish) coating. They are designed to provide adequate adhesion between the surface and subsequent Top(Finish) coating of other coatings.

Some primers lend uniformity to the topcoat, inhibit corrosion of the substrate, and/or stop topcoat discoloration.

Top(Finish) Coating

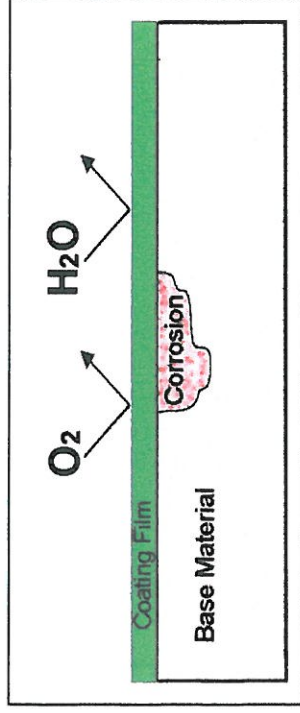
Top(Finish) Coatings are so-called Paints - a large category of coatings including pigmented liquids or powders used to protect and/or beautify substrates.

Depending on situation, multiple layers of paint are adopted.

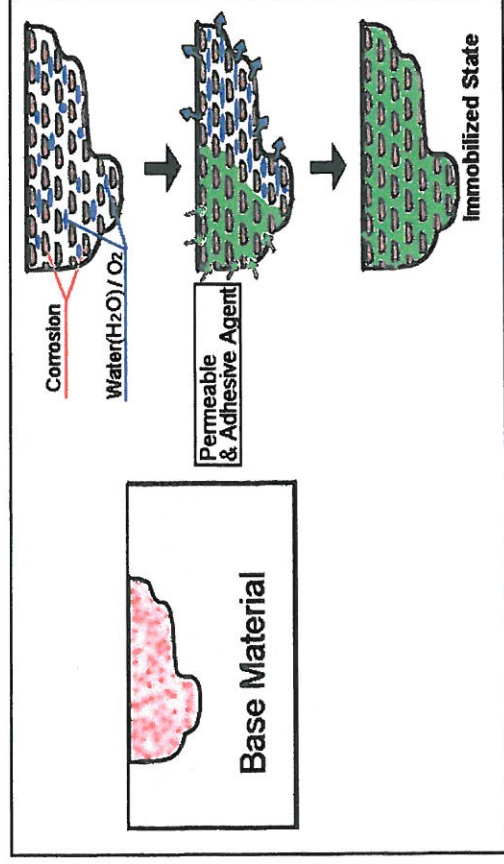
(The two general classifications of paint are enamels and lacquers.)

How to prevent the spread of corrosion by primer?

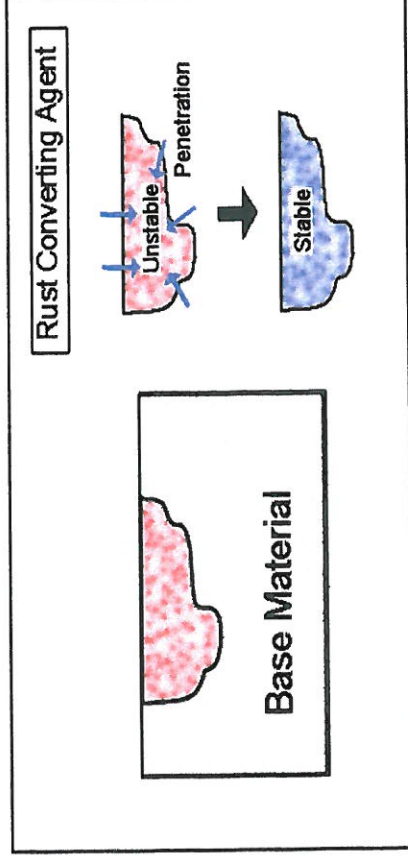
1. Coating Film



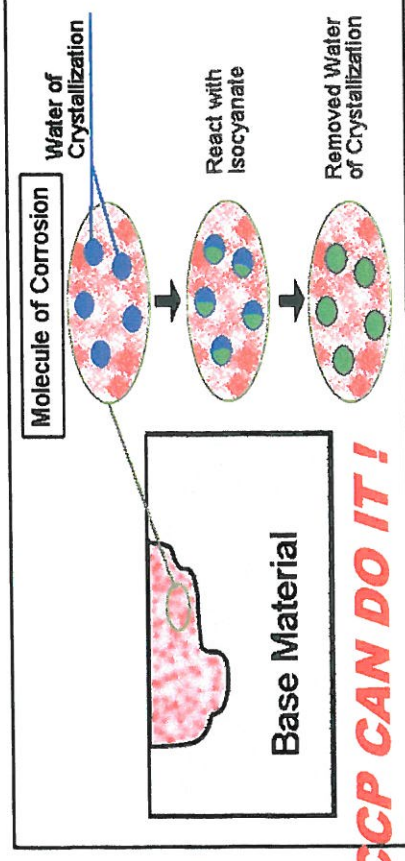
2. Extruding Residual water



3. Rust Converting



4. Remove Water of Crystallization in Molecule of Corrosion



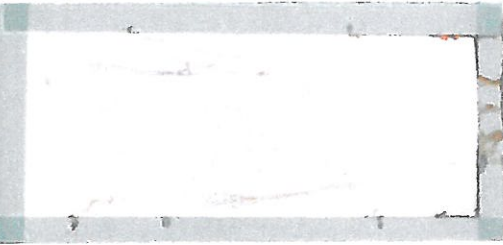

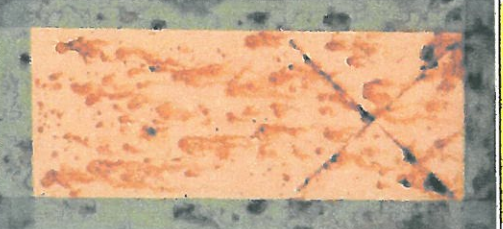
Only CCP CAN DO IT!

Anti-Corrosive Performance of CCP

The salt spray test is a standard test method used to check corrosion resistance of coated sample.

CASS(Copper Accelerated acetic acid Salt Spray) test is a suitable test for evaluation of anti-corrosive performance of coating materials.

This is the continuous salt spray test in saltwater fog cabinet. And the fog contains 5% sodium chloride solution with copper chloride dehydrate and acetic acid (test temperature: 50 degree Centigrade).

<p>SUS444(JIS) ISO/TS 15510 L-No.72 (X2CrMoTi18-2) Corrosion Resistant Steel</p> 	<p>Cold Finished Steel +CCP Primer +Generic Top-coat</p> 	<p>Cold Finished Steel +Generic Primer +Generic Top-coat</p> 
<p>264 Hrs in CASS</p> <p>1.Reddish-brown corrosion product is observed.</p>	<p>264 Hrs in CASS</p> <p>1.Any corrosion product is not observed on the coated surface. 2.Any corrosion product is not observed at cross-cut part. 3.Blistering of coating around cross-cut part is not observed.</p> <p>Remarks : 1.Rust fluid originated from cross-cut part which had been reached up to Steel surface. 2.Any expansion of cross-cut part is not observed.</p>	<p>120 Hrs in CASS</p> <p>1. Reddish-brown corrosion product is observed on whole surface. 2.Lifting of Coating film is observed on whole surface. 3.Blistering and lifting of coating around cross-cut part are observed.</p> <p>Remarks : 1.CASS test was interrupted by the reason of severe corrosion observed at 120 Hrs.</p>

*Please refer to the attached "References" for more explanation in details about Standard of Surface Preparation.

*CASS test is said that 10 times more effective at promoting corrosion than ASS(Acetic acid Salt Spray) test.

*JIS(Japanese Industrial Standard) defines as follows ;

" In the case of 'No particular corrosion is found after 24-hour test of CASS, that Nickel-Chrome plating is available to use in Corrosive outdoor environment."

*264-Hour CASS testing reports of Nickel (Ni) and molybdenum (Mo)-free 21% chromium stainless steel have been published. CCP has passed the same CCP test at whole surface and **cross-cut part (!)**.

Additional Information

CCP is widely used as an anti-corrosive primer coating over exterior steelwork over 20 years in Japan which has been designed with unique and powerful features.

CCP has a completely different features in terms of performance and functions as compared with other generic anti-corrosive primers in the world

The Japanese Ministry of Defense has decided to appoint using CCP as standard material for the prevention of corrosion on steel deck of the ships in Maritime Self Defense forces.

