

**Coatings against Chemical Attack:**

**Stainless Steel Separator refurbished effectively with Proguard CN-OC;  
Durable Protection against 33 % Sodium Chloride Solution**

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Barcelona: A salt mine near the Catalan capital city uses for crystallization of salt a specific separator of stainless steel double chambers. Even after 2 years of operation the stainless steel substrate showed heavy corrosion damages; induced by the highly aggressive concentration of sodium chloride in the water at a constantly temperature of 45 °C.



After 2 years of service severe pitting corrosion was detected especially at corners and edges of the stainless steel tanks. The 33 % solution of sodium chloride and water in combination with the elevated operation temperature of 45 °C is an excessively high chemical load for long-term use – even for stainless steel substrates.

The high concentration of salt in combination with upper temperatures is highly corrosive. For long-term value preservation of the tanks our premium coating PROGUARD CN-OC is the ideal choice. The excellent chemical stability becomes more effective due to the high adhesive strength on stainless steel, aluminum and galvanized steel – thereby reliable corrosion resistance is achieved.

**Details to the application**

<b>Project:</b>	Coating of stainless steel double chambers for salt mine
<b>Area:</b>	1600 m <sup>2</sup>
<b>Layer thickness:</b>	600 µm on walls / 1200 µm on floors
<b>Product:</b>	PROGUARD CN-OC



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### Surface preparation

The preparation of the substrate was conducted in several working steps. Firstly, the surface was cleaned by high-pressure process with demineralized water mixed with a specific salt remover product. During the second step edges of the stainless steel structures were rounded to obtain better adhesion within these areas.

### Abrasive blasting with corundum

Accurate blast cleaning (according to SA 2,5) is extremely important for the best performance of the coating; thus, best possible adhesion to the substrate is thereby achieved. After the blasting process the surface was cleaned a second time with hot demineralized water mixed with the salt remover.



The cleaned areas which are heavily damaged by corrosion were filled and smoothed with our special composite putty PROGUARD CN 200 THIX. This filler material is applied by rake or brush. It forms the optimum sealing of sensitive zones such as edges, corners and welding seams.



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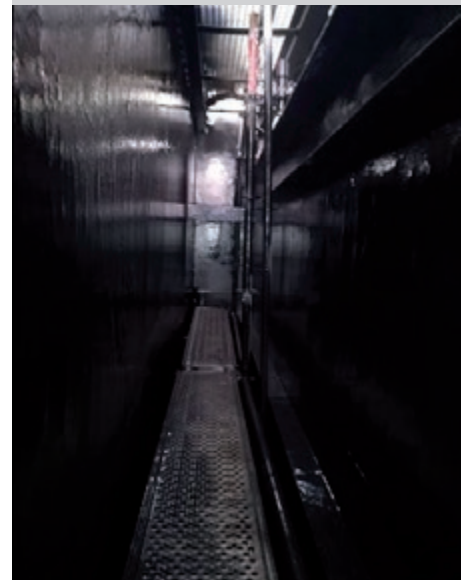
### Our Products:

- PROGUARD CN-OC
- PROGUARD CN 200 THIX

### Application of the coating PROGUARD CN-OC

Now our premium coating product could be applied by airless spraying method. The floors of the chambers were protected with a layer of 1200 µm, for the walls a layer thickness of 600 µm was enough for comprehensive corrosion protection. The surface finish of PROGUARD CN-OC is smooth and nonporous – an impermeable film for reliable and long-term corrosion prevention.

Our PROGUARD CN-OC is also available as convenient cartridge system; a clean and economical coating solution for repairs, small areas and areas which are difficult to reach.



## Are you searching for chemical resistant coatings for specific substrates like stainless steel, aluminum or galvanized steel?

## Our corrosion protection experts gladly assist you!