

## Internal Coatings for Tanks and Pipelines:

# Internal coating of pipelines for high-temperature crude oil (80°C)

Ceramic Polymer GmbH  
Daimlerring 9  
D-32289 Roedinghausen

[www.ceramic-polymer.de](http://www.ceramic-polymer.de)



In China, riser pipes for an oil platform were coated internally with our protection system PROGUARD CN 200. The outstanding physical properties were essential for the choice of our premium product.



PROGUARD CN 200 provides high-grade chemical resistance at elevated operating temperatures, excellent abrasion resistance and an extreme fast curing time with a simple application.

### Project: Internal coating of pipelines (riser tubes) for hot crude oil, China

- Customer: CNOOC Ltd., Zhanjiang/China
- Pipeline builder: CNOOC Zhanjiang detect engineering Co. Ltd
- Application of the coating: Guangzhou Wwin petrochemical Technology Co. Ltd
- Coating product: Proguard CN 200
- Completion: May 2014

#### Technical Data:

Item:	Several riser pipes for oil platform
Length:	approx. 60 m each
Inside pipe diameter:	DN 150 – 6 inch
Media:	Crude oil, oil water mixture
Oil temperature:	constantly 80°C



广州万为石化科技公司  
德国CP陶瓷防腐涂料

**Our trading partners in China:**

Guangzhou WWin  
Petrochemical Technology Co.Ltdn  
Guangzhou, PRC 510160

E-mail: w@wwint.cn

Web: www.wwint.cn

**Contact Ceramic Polymer GmbH:**

**David Garcia Simao** (Director)  
+49-5223-96276-15 | dgs@ceramic-polymer.de

**Woldemar Haak** (Sales Management)  
+49-5223-96276-13 | wha@ceramic-polymer.de

**Our Product:**

Proguard CN 200



First of all, the pipelines were grit blasted according to standard SSPC-SP10 by special pipe interior sandblasting equipment with rotating head.

Our coating product PROGUARD CN 200 was applied in 2 layers, each with a thickness of 500 µm. The application process could be conducted accurately by a specific pipecoater. Due to low viscosity this coating system is sprayable without pre-heating. The fast curing time facilitates a completion after 24 hours!



After full curing, the surface was inspected with an electronic spark detector (Holiday tester, high voltage 3 kV – according to NACE guidelines). No pinholes, blistering or cracks were detected, the coating material showed a smooth surface. The specification required a total layer thickness of 1000µm, which was also tested thoroughly.

**Product Advantages of PROGUARD CN 200**

- free of solvents
- excellent chemical resistance
- high abrasion resistance
- high temperature resistance up to 150°C (durable)
- fast curing times
- low viscosity, sprayable without pre-heating
- optional: implemented function against SRB-bacteria induced bio corrosion (pitting corrosion) = Proguard CN 200-SRB
- optional: antistatic property = Proguard CN 200 a.s.



**Do you need chemical and temperature resistant coating systems?**

**Our corrosion-protection experts gladly advise you competently and comprehensively.**