Coatings for drinking water and food applications:

External coating of 20 beer-tanks as well as Internal coating of huge hot-water tanks

At the Radeberger Brewery in Berlin the external coating in the conus area of 20 big beer-tanks has to be renewed; this was successfully realized by Dogan located in Kiel/Germany. Furthermore, the MAP GmbH in Rathenow/Germany selected for the internal coating of 2 hot-water tanks out Proguard CN 200 as well.

Project No. 1: External coating of 20 beer-tanks – Radeberger Brewery, Berlin/Germany

The storage and fermentation tanks each contain 2,400 hectoliters of beer. They have a height of 23 m and a diameter of 4-6 m. The inner material of the tanks is stainless steel, on the outside 10-12 mm steel partially corroded by the demands of long operation time.

The coating product for these fermentation tanks has to meet specific requirements. After fermentation and storage procedures, the tanks are rinsed with hot water before new filling. Therefore, the external coating must withstand fast changes of operating temperatures. Moreover, a proven suitability for drinking water applications is important.

The Ceramic Polymer high-performance coating system Proguard CN 200 provides these physical properties. The drinking water certification for working temperatures up to 85°C can be documented by relevant tests of independent institutes.

For appropriate surface preparation the substrate is blasted after standard SA2,5 with copper slag. Thereby, the old and damaged coating is removed and the necessary roughness of the steel is obtained. Following, Proguard CN 200 is applied by Airless spray method with a one-coat layer of 300 µm.

Technische Details

| Project: | Radeberger Brauerei, Berlin |
| Size of the tanks: | 23 m height, 4-6 m diameter |
| Application product: | Proguard CN 200 |
| Product Certification: | temperatures up to 85°C, drinking water certification |
| Applikation der Beschichtung: | Dogan GmbH, Heikendorf/Germany |

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Project No. 2: Internal coating of huge hot-water tanks

For the internal coating of 2 hot-water tanks Proguard CN 200 of our premium product series was again selected. The outstanding physical properties of this coating system are always satisfying; in this case the requirements are placed on the permanent thermal stability and the drinking water qualification at high operating temperatures.

Technical data of the 2 hot-water tanks:

- Height 15.8 meters (standing on skirt support)
- Diameter 3.8 meters
- Operating pressure 6 bar
- Weight 27 tons each
- Water temperature constantly ca. 75°C
- Water temperature temporary max. 100°C
- Internal coating Proguard CN 200 with a total layer of 1.000 µm

Satisfy yourself of the properties and resistances of our qualified product series for drinking water and foodstuff.