Coatings for specific Constructions:
Ceramic Polymer: Coating of copper block heat exchanger by flood method with low viscosity PROGUARD CN-1M

The company “Zacosin® the surface experts”, located in Gladbeck/Germany, is specified on surface protection of different devices and plant components as well as the wide scope of thermal process technology. For several years, our product PROGUARD CN-1M is applied for new coating or repair of coolers and water chambers made of copper, steel or cast aluminum. Furthermore, the system is used as sealing of thermal coated, enameled heat exchanger.

The coating of the big copper blocks usually takes 1.5 hours by flood process to achieve layer thicknesses of approx. 250 - 350 µm. One coat is enough to protect the heat exchanger tubes durably against corrosion and dirt deposits.

The curing of the coated cooler lasts 24 hours at room temperature. The procedure can be shortened to 12 hours through the use of a 40 °C fan heater. Thus, down times of the cooling facilities can be clearly reduced.

Application Details

<table>
<thead>
<tr>
<th>Project:</th>
<th>Coating of so far 25 copper blocks cooler for different industries by flood method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coating product:</td>
<td>Low viscosity version of PROGUARD CN-1M</td>
</tr>
<tr>
<td>Layer thickness:</td>
<td>250 - 350 µm</td>
</tr>
<tr>
<td>Product properties:</td>
<td>Durable temperature resistance of 150 °C; excellent stability against chemical influences; high flowability, therefore efficient coating by flood method possible.</td>
</tr>
</tbody>
</table>
Do you need high-quality coatings for demanding environmental conditions?

Our portfolio provides corrosion protection products for any requirements!

The heat exchanger before flooding with our coating product PROGUARD CN-1M.

After flooding all loops of the cooler are durably protected against corrosion and dirt deposits.

The application is suitable for new components or repaired heat exchangers.

Also available as cartridge systems for efficient repair on site

Ceramic Polymer GmbH has especially designed selected coatings for advanced cartridge application with Sulzer Mixpac Technology. This method facilitates a clean and cost-saving application for small projects and areas which are difficult to reach; also includes any kind of heat exchanger. Zacosin® uses PROGUARD CN-1M for the repair of damaged protective coating directly on site. With the compact Sulzer spray dispenser, the application is conducted partially and economical. No time-consuming transport of the cooler is necessary for small applications or repair. After short curing times the unit can immediately take into service.

Reduction of conventional maintenance expenses

The smooth surface texture of the coating system effectively prevents heavy dirt deposits and incrustations between the tubes. The cleaning is considerably simplified. Thus, the operating and maintenance costs are clearly reduced. The heat transfer remains constant, the efficiency and safety of the coolers are preserved in the long term. In summary, the service life and the use of heat exchangers are noticeably increased with a suitable coating.