Ceramic-Polymer XRC is a temperature and chemical high-resistant 2-pack special SiC composite coating containing silanized high-tech-micro-particle reinforcement, based on an ultra-modern hybridized epoxy-novolac-resin base. This system provides an excellent surface protection on a variety of substrates in extremely aggressive environments.

**APPLICATION RANGE**
- Internal and external coating for
  - Sleeves
  - Rollers for paper, plastic and printing industry
  - Production vessels and plants
  - Gravel filters, sand filters, solid containers

**TECHNICAL INFORMATION**
- **Color**: Anthracite
- **Gloss**: Satin
- **Volume solids**: 98 % (±1 %)
- **Flexural Strength**: 54 MPa (7,832 psi) according to ASTM D790
- **Chemical resistance**: Excellent
- **Abrasion resistance**: 15 mg (ASTM D4060)
- **Adhesion**: 38 MPa (5,511 psi) on carbon steel (ASTM D4541)
- **Specific Gravity (Mix)**: Approx. 1.5 g/cm³

**APPLICATION DATA**
- **Application by airless spraying**
  - Airless pump, gear ratio 1 : 68 or higher, inlet pressure > 6 bar,
  - Tip size 0.021-0.026", Hose length max. 15 m, Spray hose diameter max. ¾";
  - We recommend the removal of the high-pressure filter and the direct suction of the material without use of a siphon tube.

- **Application by brush/roller**
  - Recommended for small areas, repairs or to precoat edges.
  - To obtain the required layer thickness, additional coating passes (wet-on-wet) may be necessary.

- **Mixing ratio**: 4 : 1 by weight / 3.3 : 1 per volume
- **Mixing time**
  - Component A: Stir up intensively by mechanical means
  - Components A+B: Mix up homogeneous. Mixer speed >100 rpm
- **Potlife**: 25 minutes at 25 °C (77 °F) / 20 minutes at 30 °C (86 °F) / 15 minutes at 40 °C (104 °F)
  - Material spray temp.: Minimum 25 °C (77 °F) recommended.
- **Cleaner**: Do not use thinners. We recommend to use Proguard cleaners to clean and flush equipment.
- **Number of coats**: One or multiple coats, depending on specification. Application of multiple layers must be wet-on-wet!
  - Minimum coating thickness 250 μm; Sagging limit per layer: 600 μm at 25 °C (77 °F) material temperature.
  - Extended layer thickness dependent on application method, please consult us!
- **Machine processing**: After full curing mechanical grinding is possible.

**THEORETICAL CONSUMPTION**
- **film thickness per coat: dry**
- **film thickness per coat: wet**
- **kg/m²**
- **m²/kg**

<table>
<thead>
<tr>
<th>Theoretical consumption</th>
<th>film thickness per coat: dry</th>
<th>film thickness per coat: wet</th>
<th>kg/m²</th>
<th>m²/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 μm</td>
<td>255 μm</td>
<td>0.38</td>
<td>2.63</td>
<td></td>
</tr>
<tr>
<td>600 μm</td>
<td>612 μm</td>
<td>0.92</td>
<td>1.09</td>
<td></td>
</tr>
</tbody>
</table>

All above values are approximate and may be used as a guideline for specifications. Consumptions vary according to conditions.
**SURFACE PREPARATION**

All surfaces to be coated should be clean, dry and free from contamination. Prior to application, all surfaces should be assessed and treated in accordance with ISO 8504:2000. Remove weld spatter and smooth weld seams and sharp edges. Oil or grease should be removed according to SSPC-SP1 solvent cleaning.

**Abrasive Blast Cleaning**

For best adhesion results the surfaces should be prepared by abrasive blast cleaning to minimum SA 2.5 (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of Rₜ 50-80 μm is required. Contact Chesterton International GmbH for further information.

The coating system must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidized area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

**Concrete Substrates**

Refer to Chesterton International GmbH for specific recommendations.

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**CONDITION DURING APPLICATION**

Substrate temperature should be minimum 10 °C (50 °F) and minimum 3 °C (37 °F) above dew point. Relative humidity should be below 85 %. Temperature and relative humidity must be measured in the vicinity of the substrate.

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**CURING TIME**

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Fully cured</th>
<th>Machinable</th>
<th>Chemically resistant</th>
<th>Recoat Airless spraying</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 °C (68 °F)</td>
<td>24 hrs.</td>
<td>3 days</td>
<td>7 days</td>
<td>only wet-on-wet!</td>
</tr>
<tr>
<td>25 °C (77 °F)</td>
<td>20 hrs.</td>
<td>3 days</td>
<td>4 days</td>
<td>only wet-on-wet!</td>
</tr>
<tr>
<td>30 °C (86 °F)</td>
<td>18 hrs.</td>
<td>2 days</td>
<td>3 days</td>
<td>only wet-on-wet!</td>
</tr>
<tr>
<td>40 °C (104 °F)</td>
<td>12 hrs.</td>
<td>2 days</td>
<td>2 day</td>
<td>only wet-on-wet!</td>
</tr>
</tbody>
</table>

After drying by heat the material should be cooled down to room temperature before the next processing (grinding) starts.

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**STORAGE AND PACKING**

Preferred storage conditions are to keep the containers in a dry and cool area below 30°C (86 °F) provided with adequate ventilation. The containers should be sealed tightly.

**Packing**

12.5 kg kits incl. hardener (10 kg Part A + 2.5 kg Part B)
Small Quantity: 1.0 kg incl. hardener (0.8 kg Part A + 0.2 kg Part B)

**Shelf life:** 2 years

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**QUALITY ASSURANCE AND INSPECTION**

To ensure a continuous quality of the product, the quality assurance and inspection plan of Chesterton International GmbH has to be considered. Recommendations for qualified test control units are also available.

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**HEALTH AND SAFETY**

Observe the precautionary notices on the container label, and read the Material Safety Data Sheet before use. The product is intended for use by properly qualified professional applicators in industrial conditions. The product is flammable and should be kept away from sparks, open flames, and other sources of ignition. Smoking is prohibited in the application area. Wear suitable respiratory equipment and apply in well ventilated areas. Avoid contact with skin and eyes.

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**DISCLAIMER**

All technical information in this Product Data Sheet is signified as material description and based on laboratory tests and practical experiences under normal conditions. During individual use, actual measured data may vary due to circumstances beyond our control. In particular, the recommendations regarding the application and use require the proper storage and treatment of our products. Due to differences in materials, substrates and real site conditions Chesterton International GmbH does not assume any warranty or liability for application results or fitness for a particular purpose, of any legal relationship whatsoever, neither from this information, nor from any given recommendations, or from any other oral advice. The user of the product must check the product’s suitability for the intended application and purpose. Chesterton International GmbH reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our general terms and conditions of sale and delivery. The most recent issue of the Product Data Sheet has to be considered, please ask always for the current version.