

**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



**FEATURES AND BENEFITS**

- Outstanding abrasion resistance
- Extrem high degree of cut resistance
- Excellent chemical resistance
- Temperature resistance up to 150°C (302 °F) (dependent on medium)
- Machinable after curing
- High-sold content

**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/cm <sup>3</sup>

**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. 3/4"; 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: Stirup 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 temperature - waiting time under continuous pressure may reduce pot life!
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 (68 °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/m <sup>2</sup>	m <sup>2</sup> /kg
	Please contact Chesterton International technical services for specific system and application advice.	250 µm	255 µm	0.38
	600 µm	612 µm	0.92	1.09

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.

<b>Abrasive Blast Cleaning</b>	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 R <sub>a</sub> 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.
<b>Concrete Substrates</b>	Refer to Chesterton International GmbH for specific recommendations.

## 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.

## CURING TIME

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

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

## 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.

<b>Packing</b>	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)
<b>Shelf life:</b>	2 years

## 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.

## 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.

## 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.