

Ceramic-Polymer SF/LF is a two pack ceramic composite epoxy coating providing excellent abrasion and corrosion protection to a wide variety of substrates in aggressive environments.

APPLICATION RANGE

- Internal and external coating for
- On- and Offshore facilities and splash zones
- Tubing and pipelines
- Waste water ponds



TECHNICAL INFORMATION

Color	RAL colors
Gloss	Satin
Volume solids	Approx. 100 %
Flexibility	Excellent
Sea water resistance	> 6,000 hours sea water immersion test, ISO 20340
Corrosion resistance	> 10,000 hours salt spray (ISO 7253)
Chemical resistance	Very good
Abrasion resistance	58 mg loss (ASTM D 4060)
Adhesion	34 MPa (4,931 psi) on steel (ASTM D4541)
Density	Approx. 1.54 g/cm ³

APPLICATION DATA

Application by airless spraying	Airless pump, gear ratio 1 : 68 or higher, inlet pressure > 6 bar, tip size: 0.019-0.026", Hose length max. 20m, 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	3 : 1 by weight / 1.97 : 1 by volume
Mixing time	Component A: Stirrup intensively by mechanical means Components A+B: Mix up homogeneous. Mixer speed >100 rpm
Potlife	40 minutes at 20 °C (68 °F) / 30 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 20 °C (68 °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. Minimum coating thickness 300 µm; sagging limit per layer: 1000 µm at 20 °C (68 °F) material temperature.

Theoretical consumption	film thickness per coat: dry	film thickness per coat: wet	kg/m ²	m ² /kg
Please contact Ceramic Polymer technical services for specific system and application advice.	300 µm	300 µm	0.46	2.17
	1000 µm	1000 µm	1.54	0.65

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



FEATURES AND BENEFITS

- High-solid content
- 1-layer-system
- Approval for DVGW-W270 – growth of micro-organisms (bio film)
- ISO 20340 (Performance requirements for protective paint systems for offshore and related structures)
- Optional:
BAW-Approval Im1 = Ceramic-Polymer SF/LF-SW

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 R _a 75-100 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.

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 TIMES

Substrate temperature	Cured	Chemical resistant	Recoat	
			Airless spraying	
			Minimum	Maximum
20 °C (68 °F)	48 hrs	9 days	10 hrs	48 hrs
25 °C (77 °F)	36 hrs	7 days	10 hrs	36 hrs
30 °C (86 °F)	24 hrs	6 days	6 hrs	24 hrs
40 °C (104 °F)	12 hrs	5 days	4 hrs	12 hrs

STORAGE AND PACKING

Preferred storage conditions are to keep the containers in a dry and cool area below 35 °C (95 °F) provided with adequate ventilation. The containers should be sealed tightly.

Packing	16 kg and 30 kg kits incl. hardener
Shelf life:	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.