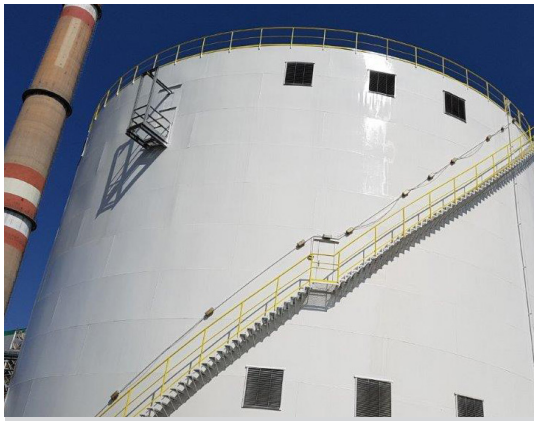
Ceramic-Polymer STP-EP is a surface tolerant two pack ceramic composite epoxy coating providing outstanding corrosion protection to a variety of metal, fiberglass, reinforced plastic and concrete substrates. **Ceramic-Polymer STP-EP** is a thin-film, high-solid coating material.



APPLICATION RANGE

Internal and external coating for

- Steel structures
- Tanks and pipelines
- Offshore and onshore constructions

FEATURES AND BENEFITS

- High chemical resistance
- Excellent abrasion resistance
- Surface tolerance
- 100 % resistance against all kinds of hydrocarbons
- 100 % resistance against sea water
- High temperature resistance up to 120 °C (248 °F) (dependent on medium)
- High-solid content

TECHNICAL INFORMATION

Color	RAL tones, preferable gray tones
Surface	Satin
Volume Solids	Approx. 100 %
Chemical resistance	Excellent
Abrasion resistance	53 mg loss (ASTM D4060)
Adhesion	37 MPa (5,366 psi) on steel (ASTM D4541)
Flexural Strength (ASTM D 790)	11,300 psi
Flexural Modulus (ASTM D 790)	6.7 x 10^5 psi
Shore D Hardness (ASTM D 2240)	87
Density	Approx. 1.50 g/cm^3

APPLICATION DATA

Application by airless spraying	Airless pump, gear ratio 1 : 68 or higher, inlet pressure > 6 bar, tip size 0,015-0,019", Hose length max. 15 m, Spray hose diameter ½"; 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	5 : 1 by weight / 3 : 1 by volume
Mixing time	Component A: Stirup intensively by mechanical means Components A+B: Mix up homogeneous. Mixer speed >100 rpm
Potlife	30 minutes at 20 °C (68 °F) / 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 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. Miniumum coating thickness 100 µm; sagging limit per layer: 200 µm at 20 °C (68 °F).

Theoretical consumption	Film thickness per coat: dry	Film thickness per coat: wet	kg/m²	m²/kg
Contact Chesterton International GmbH technical services for specific system and application advice.	100 µm	100 µm	0.15	6.60
	200 µm	200 µm	0.30	3.30

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

CHESTERTON
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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 immersion service, 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_t > 50 µm is required. The minimum standard for non-immersion service is SA1 (ISO 8501-1:2007) or SSPC-SP7. 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	Fully cured	Chemical resistance	Recoat Airless spraying	
			Minimum	Maximum
20 °C (68 °F)	24 hrs	7 days	5 hrs	36 hrs
25 °C (77 °F)	20 hrs	6 days	5 hrs	36 hrs
30 °C (86 °F)	18 hrs	5 days	3 hrs	24 hrs
40 °C (104 °F)	12 hrs	4 days	2 hrs	18 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	19.98 kg kits incl. hardener (16.65 kg part A + 3.33 kg part B)
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.

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