

STP-EP-HV Cartridge 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. As cartridge-kit the product is especially suitable for repairs, coating of small surfaces and areas which are difficult to access.

APPLICATION RANGE

As internal or external coating for repairs, coating of small surfaces and areas which are difficult to access for:

- Vessels and process tanks
- Storage tanks for hydrocarbons
- Offshore and onshore constructions
- Tubes and pipelines



TECHNICAL INFORMATION

Color	gray
Surface	Satin
Volume solids	Approx. 100 %
Chemical resistance	Excellent
Abrasion resistance (ASTM D 4060)	53 mg loss
Adhesion (ASTM D4541)	37 MPa (5,366 psi) on steel
Flexural Strength (ASTM D 790)	8,267 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



FEATURES AND BENEFITS

- High-solid content
- High chemical resistance
- Excellent abrasion resistance
- Surface tolerance
- Temperature resistance up to 120 °C (248 °F) (dependent on medium)
- Clean resealable after use, remaining material usable for at least 6 months
- Shorter working time, no need of extensive mixing procedure
- Cold application possible (20 °C / 68 °F), without preheating
- Prevention of mixing failures
- Portability - lightweight, portable dispenser for versatile use

APPLICATION DATA

Application methods	2-Component-Mixpack-Cartridge. Only applicable with suitable dispenser, available at Chesterton International GmbH
Mixing ratio	3 : 1 per volume, ready for use.
Potlife (20°C)	Reclosable after use, min. 6 months usable.
Material application temp.	minimum 20 °C (68 °F) maximum 40 °C (104 °F).
Number of coats	One or multiple coats, depending on specification. Minimum coating thickness 200 µm; sagging limit per layer: 500 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 Chesterton International technical services for specific system and application advice.	200 µm	200 µm	0.30	3.33
	500 µm	500 µm	0.75	1.33

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.

Preparation Grade	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 Rt >80 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.

DRYING TIME

Substrate temperature	Fully cured	Chemical resistant	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	1.5 kg cartridge-kit. Total volume 1,000 ml with matched mixing ratio.
Shelf life:	1 year, after usage remaining material usable for at least 6 months

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.