

**CN-1M Cartridge** is a temperature and chemical high-resistant 2-pack special composite coating containing silanized high-tech-micro-particle reinforcement, based on an ultra-modern hybridized epoxy-novolac-resin. 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 coating for repairs, coating of small surfaces and areas which are difficult to access for:
- Storage tanks and process vessels for crude oil, hydrocarbons, chemicals
  - Special tanks for urea, bio oils
  - Biogas fermenters
  - Pipelines for oil & gas



**TECHNICAL INFORMATION**

<b>Color</b>	black
<b>Gloss</b>	satın
<b>Volume solids</b>	98 % (±1 %)
<b>Flexural Strength</b>	44 MPa (6,382 psi) according to ASTM D790
<b>Chemical resistance</b>	Excellent
<b>Abrasion resistance</b>	48 mg (ASTM D4060)
<b>Adhesion</b>	41 MPa (5,947 psi) on carbon steel (ASTM D4541)
<b>Specific Gravity (Mix)</b>	Approx. 1.2 g/cm <sup>3</sup>



**FEATURES AND BENEFITS**

- Excellent chemical resistance
- High corrosion and abrasion protection
- Temperature resistance up to 150 °C (302 °F) (dependent on medium)
- High-solid content
- 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**

<b>Application methods</b>	2-Component-Mixpack-Cartridge. Only applicable with suitable dispenser, available at Chesterton International GmbH
<b>Mixing ratio</b>	3 : 1 per volume, ready for use.
<b>Potlife (20°C)</b>	reclosable after use, min. 6 months usable
<b>Material application temp.</b>	minimum 20 °C (68 °F) maximum 40 °C (104 °F)
<b>Number of coats</b>	One or multiple coats, depending on specification. Application of the 2nd layer must be wet-on-wet! Minimum coating thickness 250 µm; sagging limit per layer: 600 µm at 20 °C (68 °F) material temperature.

<b>Theoretical consumption</b>	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	0.31	3.23
	600 µm	612 µm	0.73	1.37

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 $R_a$ 75-100 $\mu$ m 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 TIMES

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

### 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.

<b>Packing</b>	1.2 kg cartridge-kit. Total volume 1,000 ml with matched mixing ratio.
<b>Shelf life:</b>	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

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