

## Chester Surface Protector D

### DESCRIPTION:

Chester Surface Protector D is a two-component flowable epoxy composite. The material contains modified epoxy resins, ceramic and quartz fillers. Designed to protect against erosion and corrosion of metal and concrete surfaces, including floors. Cures at room temperature.

### TYPICAL APPLICATION:

- FLOORING
- PROTECTION OF TANKS
- PROTECTION OF METAL AND CONCRETE SURFACES AGAINST CORROSION
- PROTECTION OF PIPELINES
- MANHOLE COATINGS
- MARINE BUOYS PROTECTION
- PROTECTION OF SUMP TRAYS AND TANKS

### Technical data

Density	-----	-----	<b>1,3 ± 0,05 g/cm<sup>3</sup></b>	
Mix Ratio by Volume	-----	-----	<b>whole pack</b>	
Mix Ratio by Weight	-----	-----	<b>4 : 1</b>	
Color			<b>(gray /light gray /blue/ green)</b>	
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	<b>22,1 MPa</b>	<b>3205 psi</b>
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	<b>22,1 MPa</b>	<b>3205 psi</b>
Tensile Shear (Aluminum)	ASTM 1002	ISO 4587	<b>12,5 MPa</b>	<b>1810 psi</b>
Tensile Shear (Brass)	ASTM 1002	ISO 4587	<b>11 MPa</b>	<b>1595 psi</b>
Temperature Resistance Wet	-----	-----	<b>60°C</b>	
Temperature Resistance Dry	-----	-----	<b>100°C</b>	
Minimal Working Temperature	-----	-----	<b>-50°C</b>	
Working Life (68 F)(20 C)	-----	-----	<b>55 min</b>	
Hardness	ASTM D2240	-----	<b>58 Sh D</b>	
Abrasion resistance	-----	ISO 7784-2; disc H10; loading 1kg	<b>15,8 mm<sup>3</sup></b>	
Recoat time	-----	-----	<b>3-16 h</b>	
Curing time in 20° C			<b>min. 24 h</b>	

### DIRECTIONS FOR USE

#### Conditions during the application.

The product is not recommended to apply when the ambient temperature is below 8°C(46°F) and the relative humidity is above 90% or when condensation occurs on the surface to be repaired.

#### Metal surface preparation.

From the surface to be protect you need to delete all kinds of impurities, grease, oil, loose corrosion products, old paint coatings. For pre-cleaning is recommended to use the product Cleanrex, Cleanrex II, Fast Cleaner F-7. The surface of the part to be repaired should be degreased chemically or with a gas burner and mechanically cleaned - by shot blasting,

sandblasting or with the use of angle grinders, pin grinding wheels, sandpaper, etc. and then if necessary degrease using the e.g. Chester Fast Cleaner F-7 or Ultra Fast Degreaser F-6.

#### Concrete surface preparation.

The surface must be clean and dust-free and free from loose pieces of concrete. New concrete must be cured for at least 28 days and cleaned of the cement wash. A slight surface dampness is allowed.

#### Mixing and application of the composition.

Use two different spatulas to take the Base and the Reactor. Both components should be mixed on an even smooth surface or in original packaging until a uniform color is obtained, and then, if

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necessary, add a dye to obtain the desired color. Application should be made immediately after preparing the mixture. It is recommended to apply 2 layers of material with a thickness of 0,30 mm each. When applying the second layer, the first cannot be completely cured. Apply the material with a brush or spatula.

### Coverage rate.

Using 1kg of the product you can obtain 1,28 m<sup>2</sup> coat of 0,6 mm thickness. To cover a surface of 1m<sup>2</sup> of 0,6mm thickness - you need 0,78 kg of the product. Values given above are theoretical ones. In practice because of various roughness of the surface, decrements, irregularity – efficiency of the product may differ by ± 15%

### Post curing.

Post curing at temperature of 60-80° C(140-176° F) for minimum 2h, after initial cure considerably improves mechanical properties, heat and chemical resistance.

### CURE TIME ACCORDING TO THE TEMPERATURE

Ambient temperature °C (°F)	Working life [min]
5 (41)	120
10 (50)	80
20 (68)	55
30 (86)	40

It should be remembered that the rate of the reaction significantly depends, apart from the ambient temperature, on the quantity of the used material (the bigger mass of the mixed material, the reaction rate increases). The above presented times refer to the mass of 0,1 kg of the composite.

### CHEMICAL RESISTANCE

Unless otherwise stated, the tests were carried out at 20 ° C (68°F). The samples were cured for 7 days at the temperature of 20 ° C (68°F)

- 1 – Prolonged immersion
- 2 – Short-term immersion
- 3 – Not recommended

Solvent	Chemical resistance
Petrol	1
Diesel fuel	1
Antifreeze (glycol)	1
Motor Oil	1
Petroleum	1
Nitric acid 15%	1
Phosphoric acid 10%	1
Acetic acid 5%	2
Amines up to 20%	1
Hydrochloric acid 15%	1
Ammonia 20%	1
Water 60°C	1
Sea water	1
Sodium hydroxide 40%	1
Chlore	1
Methylene Chloride	3

Full table of chemical resistance is on the website

### OTHER INFORMATION

#### Color

Light gray

#### Dyes

Additionally, the offered dyes make it possible to obtain the following colors:

- Grey
- Green
- Blue

#### Storage

The product should be stored in original packaging at temperature between +0°C (32°F) to +30°C (86°F).