

## Chester Coating D2

### DESCRIPTION:

Chester Coating D2 is a two-component, fluid coating material applied by airless spraying. It can also be applied with a brush. The material contains modified epoxy resins and anti-corrosive pigments. Designed to protect metal and concrete surfaces against corrosion, weather conditions and some chemicals. The product contains 100% solids. Cures at room temperature.

### TYPICAL APPLICATION:

- PROTECTION OF STRUCTURAL STEELWORKS
- PROTECTION OF PIPELINES
- PROTECTION OF STORAGE TANKS
- PROTECTION OF SEWERS AND SEWAGE TANKS

### Technical data

Density	-----	-----	1,34 ±0,05 g/cm <sup>3</sup>	
Mix Ratio by Volume	-----	-----	Whole package	
Mix Ratio by Weight	-----	-----	5 : 1	
Color	-----	-----	Grey	
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	20,0 MPa	2900 psi
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	20,5 MPa	2975 psi
Tensile Shear (Aluminum)	ASTM 1002	ISO 4587	12,0 MPa	1740 psi
Tensile Shear (Brass)	ASTM 1002	ISO 4587	11,0 MPa	1595 psi
Temperature Resistance Wet	-----	-----	60°C	140°F
Temperature Resistance Dry	-----	-----	100°C	212°F
Minimal working temperature	-----	-----	-50°C	-58°F
Working Life (68°F)(20°C)	-----	-----	45 min	
Hardness	ASTM D2240	-----	86 Sh D	
Time to apply next layer at 20°C	-----	-----	min. 3,5 h	

### DIRECTIONS FOR USE

#### Conditions during the application.

Product cannot be used at temperatures below 15 ° C (59°F) and relative humidity higher than 90% and under conditions in which condensation of moisture on the repaired surface.

#### Preparation of metal surfaces.

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. You should always strive to

thoroughly remove impurities and make the surface rough.

#### Preparation of concrete surfaces

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.

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### Mixing and application of the composition.

Both components should be mixed in original containers to obtain uniform color with the use of low-speed mixer. It is advisable to mix the full content of the package. Application should be done immediately after preparation of the mixture. It is recommended to make at once a layer of 0,15 – 0,25 mm. **Recommended complete covering system consist coating layer Chester Coating D1 and Chester Coating D2 - top layer.** The product can also be used in combination with other Chester products or be used independently.

Applications should be carried out at a temperature of min. 15°C (59°F).

### Recommended airless spray parameters at 20 °C

Pressure	18-23 MPa (2611-3336 psi)
Nozzle	0,015 – 0,019
Filter in the gun	50 mesh

### Efficiency.

From 1kg of material you will obtain 3,7m<sup>2</sup> layer of thickness of 0,20 mm, it means – to cover 1m<sup>2</sup> with 0,20mm thickness layer, you need 0,27kg of material. The above data are calculated theoretically. In practice, due to the different roughness of the surface, pitting, inequality, as well as deviations from the assumed thickness of the coating, the actual performance may vary by ± 15%

### Thermal stabilization.

Post curing at a temperature of 70-80°C (158-176°F) for minimum 2h, after initial cure considerably improves mechanical properties, heat and chemical resistance. Optimal curing process: 7 days in 20°C (68°F) and post-curing at 80°C (176°F) for 4 hours.

### TEMPERATURE EFFECT ON CURING TIME.

Ambient temperature °C (°F)	Working life [min]
15 (59)	60
20 (68)	40
30 (86)	30

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)

**The data in the table is for the complete system (D1 + D2)**

- 1 – Continuously contact
- 2 – Temporally contact
- 3 – Not recommended

Medium	Chemical Resistance
Petrol	1
Diesel	1
Coolant	1
Engine Oil	1
Oil	1
Nitric acid 10%	2
Phosphoric acid 10%	2
Acetic acid 5%	3
Amines up to 20%	1
Hydrochloric acid 10%	1
Sulfuric acid 15%	2
Ammonia 20%	1
Water 60°C	1
Seawater	1
Sodium hydroxide 40%	1
Acetone	2
MEK	2
Ethyl acetate	1

### OTHER INFORMATION

#### Storage

The product should be stored in the original packaging at temperatures between +5 °C (37°F) to +30 °C (86°F).