

Chester Surface Protector BS

DESCRIPTION:

Chester Surface Protector BS is a two-element thixotropic epoxy-ceramic composite. It contains modified epoxy resins, and abrasion resistant fillers in the form of white beads. The covering system for protecting, repairing or modify surfaces subjected to particularly severe abrasion and erosion. Very high resistance to compression. High chemical resistance. Cures at room temperature.

TYPICAL APPLICATION:

- PUMP PROTECTION
- PROTECTION OF ELBOW CONNECTIONS
- PROTECTION OF CENTRIFUGES
- PROTECTION OF AGITATORS
- PROTECTION OF CYCLONES
- SCREW CONVEYOR PROTECTION
- CHUTES PROTECTION
- HOPPERS PROTECTION

Technical data

Cured Density	----	----	2,23±0,05 g/cm³	
Mix Ratio by Volume	----	----	4:1	
Mix Ratio by Weight	----	----	5 : 1	
Color				Light gray
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	22,5 Mpa	3265 psi
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	22,0 Mpa	3190 psi
Tensile Shear (Aluminum)	ASTM 1002	ISO 4587	12,5 Mpa	1815 psi
Tensile Shear (Brass)	ASTM 1002	ISO 4587	11,0 Mpa	1595 psi
Temperature Resistance Wet	----	----	80°C	176°F
Temperature Resistance Dry	----	----	120°C	248°F
Minimal Working Temperature	----	----	-50°C	-58 °F
Working Life (68°F)(20°C)	----	----	40 min	
Hardness	ASTM D2240	ISO R868	93 ShD	

DIRECTIONS FOR USE

Conditions during the application.

The product is not recommended to apply when the ambient temperature is below 10°C (50°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. Always strive to thoroughly remove surface contamination and make the surface well roughened.

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. Efforts should be made to apply immediately after preparing the mixture, because the curing reaction starts immediately and any delay reduces the adhesion.. The recommended thickness of the applied layer is at least 1,5 mm.

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Coverage rate

Using 1kg of the product you can obtain 0,3 m² coat of 1,5 mm thickness.

To cover a surface of 1m² of 1,5 mm thickness - you need 3,35 kg of the product.

Values given above are theoretical ones. In practice because of various roughness of the surfaces, decrements, irregularity – efficiency of the product may differ by ± 15%

Post curing

Post curing at a temperature of 80-100°C (176-212°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 100°C (212°F) for 2 hours.

CURE TIME ACCORDING TO THE TEMPERATURE

Ambient temperature °C (°F)	Working life [min]
10 (50)	60
20 (68)	40
30 (86)	25

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 0,10 kg of the composite.

CHEMICAL RESISTANCE

The tests were carried out at a temperature of 20 °C (68°F). The samples were cured for 7 days at 20 °C (68°F).

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

Medium	Chemical Endurance
gasoline	1
diesel	1
coolant	1
engine oil	1
oil	1
Nitric acid 10%	2
Phosphoric acid 10%	2
Acetic acid 5%	2
amines	2
Concentrated hydrochloric acid	1
Ammonia 20%	1
water 80 ° C	1
seawater	1
Sodium hydroxide 40%	1
acetone	3
methylene chloride	3

Full table of chemical resistance is on the website

OTHER INFORMATION

Storage

The product should be stored in original packaging at temperature between +0°C (32 °F) to +40°C (104 °F).