

## Chester Surface Protector BHT

### DESCRIPTION:

Chester Surface Protector BHT is a two-component, thixotropic epoxy-ceramic composite. Contains modified epoxy-novolac resins and abrasion-resistant corundum fillers in the form of white beads. A protective system for the protection, repair or modification of surfaces exposed to particularly high abrasion and erosion at elevated temperatures. Very high compressive strength. High chemical resistance. Cures at room temperature. Requires gradual heating to operating temperature.

### TYPICAL APPLICATION:

- PROTECTION OF CHUTES
- PROTECTION OF PIPE ELBOWS
- CENTRIFUGES PROTECTION
- PROTECTION OF AGITATORS
- PROTECTION OF PUMPS
- SCREW CONVEYOR PROTECTION
- PROTECTION OF CYCLONES
- PROTECTION OF FLUE GAS SEPARATORS

#### Technical data

Cured Density	----	----	<b>1,6±0,1 g/cm<sup>3</sup></b>	
Mix Ratio by Volume	----	----	<b>whole pack</b>	
Mix Ratio by Weight	----	----	<b>3 : 1</b>	
Color				<b>dark pink</b>
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	<b>21,0 Mpa</b>	<b>3046 psi</b>
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	<b>22,0 Mpa</b>	<b>3190 psi</b>
Temperature Resistance Wet	----	----	<b>110°C</b>	<b>230°F</b>
Temperature Resistance Dry	----	----	<b>210°C</b>	<b>410°F</b>
Minimal Working Temperature	----	----	<b>-50°C</b>	<b>-58 °F</b>
Working Life (68°F)(20°C)	----	----	<b>50 min</b>	
Hardness	ASTM D2240	ISO R868	<b>93 ShD</b>	

### 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.

Put the entire contents of the container marked Reactor into the container marked with Base and mix intensively until the mass is uniform in color. If part of the contents of the package is used, the mixing ratios given in the table above should be used. 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 2,5 mm.

## Chester Surface Protector BHT

### Coverage rate

Using 1kg of the product you can obtain 0,25 m<sup>2</sup> coat of 2,5 mm thickness.

To cover a surface of 1m<sup>2</sup> of 2,5 mm thickness - you need 4 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

The coating obtains full resistance after 7 days at 20 °C(68°F) or after 18h at 20 °C(68°F) and post curing at 80 °C (176°F) for 4h.

If the material will work at elevated temperatures (above 40°C), it should be cured as follows: min. 24h at 20°C(68°F) or 16h at 40°C(104°F), then gradually increase the temperature (20°C (68°F)/h) to the operating temperature using an inert medium, or post-cure the coating at a temperature of 100-110°C(212° - 230° F) for 4 hours.

### CURE TIME ACCORDING TO THE TEMPERATURE

Ambient temperature °C (°F)	Working life [min]
10 (50)	75
20 (68)	60
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 0,10 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	Odporność chemiczna
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).