

Chester Surface Protector BSHT

DESCRIPTION:

Chester Surface Protector BSHT 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	----	----	1,6±0,1 g/cm³	
Mix Ratio by Volume	----	----	whole pack	
Mix Ratio by Weight	----	----	3 : 1	
Color			dark pink	
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	21,0 Mpa	3046 psi
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	22,0 Mpa	3190 psi
Temperature Resistance Wet	----	----	110°C	230°F
Temperature Resistance Dry	----	----	210°C	410°F
Minimal Working Temperature	----	----	-50°C	-58 °F
Working Life (68°F)(20°C)	----	----	50 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.

All types of dirt, grease, oil, loose corrosion products, old paint coatings, etc. must be removed from the surface to be protected. It is recommended to use Cleanrex, Cleanrex II or Cleanrex RM for initial cleaning. The surface prepared in this way should be roughened, if possible by abrasive blasting (shot blasting, sand blasting - to obtain a surface condition of at least Sa 2½), or by using angle grinders, shank grinding wheels, sandpaper, etc. and possibly degrease using Fast Cleaner F-7 or Ultra Fast Degreaser F-6.

Always strive to thoroughly remove dirt and roughen the surface.

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 1,5 mm.

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Coverage rate

Using 1kg of the product you can obtain 0,42 m² coat of 1,5 mm thickness.

To cover a surface of 1m² of 1,5 mm thickness - you need 2,4 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%

Curing process.

Curing must take place in 2 stages.

Stage I

24h at room temperature - dry

Stage II

Heating for at least 2 hours at a temperature of 100 - 120°C (212-248°F), or gradually increasing the temperature (20-30°C(68-86°F)/h) through a neutral medium to the working temperature.

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).