

DESCRIPTION:

Chester Epoxy SL is a two-component composition of epoxy resins without solid fillers.

TYPICAL APPLICATION:

Connecting (gluing) elements exposed to strain
Metal to metal and rubber bonding
Pouring elements in order to obtain mechanical protection and protection against moisture.

Technical Data

| | |
|---------------------------------------|-------------------|
| Appearance | viscous liquid |
| Density [g/cm ³] at 25 °C | 1,15 |
| Colour | light brown |
| Mix ratio (Base : Reactor) | |
| by weight | 1 : 1 |
| by volume | 1 : 1 |
| Working life (at 20 °C) | 3,5 h |
| Initial cure (at 20 °C) | 16 h |
| Full chemical resistance | |
| at 20 °C | after 7 days |
| at 40 °C | after 14 days |
| Maximal Temperature Resistance | 200 °C/392°F |
| Minimal working temperature | 120 °C/212°F |
| Minimal working temperature | -50 °C/-58 °F |
| Tensile Shear (Mild Steel) ISO 4587 | 19,0 MPa/ 2756psi |

DIRECTIONS FOR USE

Conditions during the application

The product cannot be used at a temperature lower than 10 °C (50°F) or a relative air humidity higher than 90% and in conditions in which moisture condensation occurs on the surface to be repaired.

Surface preparation.

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. Always strive to thoroughly remove surface contamination and make the surface well roughened. A properly prepared surface should be degreased using e.g. Chester Fast Cleaner F-7 or Ultra Fast Degreaser F-6.

Mixing and application of the composition.

Use two different spatulas to take the Base and the Reactor. Mix both elements on the flat smooth surface or in their packages until obtaining a uniform color.

Efforts should be made to apply immediately after preparing the mixture, because the curing reaction starts immediately and any delay reduces the adhesion.

Necessary layer should be placed single, carefully rubbing it into the base. In case there is necessary second layer, first shouldn't be fully cured, otherwise there should be made rough surface. In the case of repairs of cracks, it is recommended to additionally reinforce the composite with a fiberglass net.

Post curing

Post curing at a temperature of 80-110°C (176-230°F) for minimum 2h, after initial cure considerably improves mechanical properties, heat and chemical resistance. Optimal curing process: 24 h at 20°C (68°F) and post-curing at 80°C (176°F) for 2 hours.

CURE TIME ACCORDING TO THE TEMPERATURE

| Ambient temperature [°C] | Working life [min] |
|--------------------------|--------------------|
| 10 | 240 |
| 20 | 210 |
| 30 | 120 |

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 0,25 kg of the composite.

CHEMICAL RESISTANCE

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

- 1 – Kontakt ciągły
- 2 – Kontakt czasowy
- 3 – Nie zaleca się

| Solvent | Chemical resistance |
|-----------------------|---------------------|
| Petrol | 1 |
| Diesel fuel | 1 |
| Antifreeze | 1 |
| Motor oil | 1 |
| Petroleum | 1 |
| Nitric acid 10% | 1 |
| Nitrous acid 10% | 1 |
| Acetic acid 3% | 2 |
| Amines | 1 |
| Hydrochloric acid 10% | 1 |
| Ammonia 20% | 1 |
| Water 100°C(212°F) | 1 |
| Sea water | 1 |
| Ozone (dry) | 1 |
| Chlorine | 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 +30°C (86 °F).