

Chester Metal Slide F

DESCRIPTION:

Chester Metal Slide F is a two-component flowable epoxy-metallic composite with very good sliding properties. The material contains modified epoxy resins, metallic and fiber fillers and molybdenum disulfide. It is designed to filling, rebuilding and bonding metal surfaces. Cures at room temperature.

TYPICAL APPLICATION:

- REBUILDING OF WORN JOURNALS AND PLAIN BEARING BUSHINGS
- REPAIR OF PISTON RODS AND CYLINDERS OF ACTUATORS
- REBUILDING OF SEALING SURFACES COOPERATING WITH O-RINGS
- REPAIR OF SLIDING GUIDES

Technical data

Cured Density	-----	-----	1,5±0,05 g/cm³	
Mix Ratio by Volume	-----	-----	whole pack	
Mix Ratio by Weight	-----	-----	9: 1	
Color			dark gray	
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	20,0 MPa	2900 psi
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	19,0 MPa	2756 psi
Tensile Shear (Aluminum)	ASTM 1002	ISO 4587	12,2 MPa	1769 psi
Tensile Shear (Brass)	ASTM 1002	ISO 4587	11,6 MPa	1682 psi
Temperature Resistance Wet	-----	-----	100°C	212°F
Temperature Resistance Dry	-----	-----	200°C	392°F
Minimal working temperature	-----	-----	-50°C	-58 °F
Heat Distortion Temperature	ASTM D648	ISO 75-1	93 °C	200°F
Working Life (68°F)(20°C)	-----	-----	25 min	
Hardness	ASTM D2240	-----	87 ShD	
Compressive Strength	ASTM D695	ISO 604	142 MPa	20595 psi
Thermal conductivity coefficient	-----	-----	0,3 W/mK	
Flexural strength	-----	ISO 178	94 MPa	13633 psi
Impact strength	-----	ISO 179-1/1fU	5,4 kJ/m²	

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DIRECTIONS FOR USE

Conditions during the application.

The product cannot be used at a temperature lower than 5 °C (41°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.

The entire contents of the container labeled **Reactor** pour into a container labeled **Base** and mix both components 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.

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: 7 days at 20°C (68°F) and post-curing at 110°C (230°F) for 4 hours.

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

The samples were subjected to optimal curing process. Unless otherwise stated, the tests were carried out at 20 °C (68°F).

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

Solvent	Chemical resistance
Petrol	1
Diesel fuel	1
Antifreeze	1
Motor oil	1
Petroleum	1
Nitric acid 10%	1
Mineral oils	1
Acetic acid 3%	1
Hydrocarbons	1
Hydrochloric acid 10%	1
Ammonia 20%	1
Water 100°C(212 °F)	1
Sea water	1
Lubricating oils	1
Chlorine	1
Acetone	3
Methylene Chloride	3

Full table of chemical resistance is on the website

CURE TIME ACCORDING TO THE TEMPERATURE.

Ambient temperature [°C](°F)	Working life [min]	Time for machining [h]
5(41°F)	50	24
10(50°F)	40	14
20(68°F)	25	5
30(86°F)	10	4

It should be remembered that the rate of the reaction significantly depends, apart from the ambient

OTHER INFORMATION

Storage

The product should be stored in original packaging at temperature between +0°C (32 °F) to +30°C (86 °F).