chester molecular®

Technical Data Sheet

December 2020

Chester EVY

DESCRIPTION:

Chester EVY is a two-component flowable epoxy composite. The material contains modified epoxy resins, metallic and quartz fillers. It is designed for making foundation screeds. The use of Chester EVY does not require special tools - the material is applied by gravity.

TYPICAL APPLICATION:

- **SEATING OF MACHINES AND DEVICES**
- **TANKS FOUNDATION**
- **SEATING OF BRIDGE BEARINGS**
- **SEATING OF LARGE-SIZE BEARINGS**
- **SEATING OF TOOTHED-WHEEL RIMS**
- **SEATING OF RUNWAYS**
- **ANCHORING FOUNDATION BOLTS**

Technical data				
Density	-----	-----	**1,53±0,05 g/cm^3**	
Mix Ratio by Volume	-----	-----	**whole package**	
Mix Ratio by Weight	-----	-----	**6: 1**	
Color			**black**	
Tensile Shear (Stainless Steel)	ASTM 1002	ISO 4587	**17,0 MPa**	**2465 psi**
Tensile Shear (Mild Steel)	ASTM 1002	ISO 4587	**17,0 MPa**	**2465 psi**
Tensile Shear (Aluminum)	ASTM 1002	ISO 4587	**12,0 MPa**	**1740 psi**
Temperature Resistance Wet	-----	-----	**60^{o}C**	
Temperature Resistance Dry	-----	-----	**80^{o}C**	
Minimal working temperature	-----	-----	**-50^{o}C**	
Working Life (68^{o}F)(20^{o}C)	-----	-----	**40 min**	
Hardness	ASTM D2240	ISO R868	**90 Sh D**	
Compressive Strength	ASTM D695	ISO 604	**125 MPa**	**18125 psi**
Thermal conductivity coefficient	-----	-----	**0,55 W/mK**	
Flexural strength	-----	ISO 178	**90 MPa**	**13050 psi**
Flexural modulus	-----	-----	**8500 MPa**	**1,23x10^6 psi**
Impact strength	-----	ISO 179	**5,3 kJ/m^2**	

DIRECTIONS FOR USE

Conditions during the application.

The product is not recommended to apply when the ambient temperature is below 10^{o}C(50^{o}F) and the relative humidity is above 90% or when condensation occurs on the surface to be repaired.

Metal surface preparation.

All contamination should be removed from the metal surface and then, if necessary, the separating agent Chester Dry Lubricant PTFE F-14 should be applied.

Concrete surface preparation.

Surface must be dry and cleaned of loose pieces of concrete

Mixing and application of the composition.

Mix the contents of the container labelled “Base” and then add “Reactor” to “Base”. Mix both until to obtain uniform consistency. Pour into prepared flood area according to earlier prepared pouring plan. The product enables the execution of screeds with a thickness of 3 to 60 mm..

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CURE TIME ACCORDING TO THE TEMPERATURE

Ambient temperature [°C]	Working life [min]	Time for full cure [h]
10	60	72
15	50	48
20	40	24

It should be remembered that the rate of reaction, in addition to the ambient temperature, is also greatly influenced by the amount of material used (the greater the mass of the mixed material, the faster the reaction is) and the thickness of the poured layer.

CHEMICAL RESISTANCE

Unless otherwise stated tests were carried at the temperature of 20°C(68°F). The tests were carried out after 7 days of curing at the temperature of 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
Nitrous acid 10%	1
Acetic acid 5%	2
Ethanol	1
Hydrochloric acid 15%	1
Ammonia 20%	1
Water 60 °C	1
Sea water	1
Sodium hydroxide 40%	1
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).