

# Chester Elastomer 60F

## DESCRIPTION:

Chester Elastomer 60F is a two-component polyurethane, liquid, chemically curable material. It is designed to protect metal surfaces against abrasion and to repair rubber coatings and elements. The product contains 100% solids. Cures at room temperature.

Due to its unique properties, the elastomer becomes thixotropic (paste-like) approximately 20 minutes after mixing.

## TYPICAL APPLICATION

Rebuilding rubber belts and rollers in belt conveyors.  
 Making non-standard gaskets and forms.  
 Rebuilding rubber casings and pump impellers.  
 Protection of chutes, fans, cyclones, screw conveyors.  
 Protection of pumps for hydraulic transport of gravel, lime milk, slag, coal.

## PROPERTIES OF UNCURED MATERIAL - AFTER MIXING

Consistency	liquid*
Color	black
The mixing ratio (Base: Reactor)	the whole package

\*Twenty minutes after the two components are combined, the elastomer remains in a thixotropic (paste-like) state for 15 minutes.

## CURING PERFORMANCE

Maximum working life counted from time from combining both components (at 20 °C)	15*min.
Time to 80% of the mechanical parameters (at 20 °C)	15 hours.
Time to get the full mechanical parameters(at 20 °C)	48 hours.
Full chemical resistance (at 20 °C)	after 7 days

\*Twenty minutes after the two components are combined, the elastomer remains in a thixotropic (paste-like) state for 15 minutes.

## PHYSICAL PROPERTIES AND STRENGTH PARAMETERS OF THE CURED PRODUCT

Maximum operating temperature (dry)	120°C
Max operating temperature (wet)	80°C
Minimum operating temperature	-50°C
Density at 25°C [g/cm <sup>3</sup> ]	1,19
Hardness (DIN 53505)	60ShA

## DIRECTIONS FOR USE

Dielectric strength (according to IEC 243-1)	19 kV / mm
Elongation at break (by ASTM412-61T)	400%
Tensile strength (according to ISO R1798)	30 MPa
Shear strength of the substrate steel with ground EL10M (according to ISO 4587)	4,5 MPa

## Conditions during the application.

The product is not recommended to apply when the ambient temperature is below 5°C and the relative humidity is above 90% or when condensation occurs on the surface to be repaired.

## Surface preparation..

Metal 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. Properly prepared surface degrease using the e.g. Chester Fast Cleaner F-7 or Ultra Fast Degreaser F-6.

Rubber surfaces, after cleaning and degreasing, should be roughened using specialized tools (special wire brushes, scrapers, etc.) or sandpaper with a grain thickness of 16-80. The prepared surface should be degreased again. Before the application on some types of rubbers, it is recommended to use Primer EL 20M. Application on metal surfaces requires the use of Primera EL 10M.

The surface prepared for application must be dry.

## Mixing and application of the elastomer.

After opening both containers, mix the contents of each of them, then pour the contents of the smaller one into the larger one and mix everything intensively for 1 minute. Then pour the entire contents of the package onto a clean, flat, dry surface (e.g. hard, stiff foil) and deareate it. It consists in spreading the mixture with a spatula in a thin layer and removing the air from it. Leaving the mixture in this form prolongs the shelf life.

The application should be started immediately after preparing the mixture and finished as soon as possible - then the best results are obtained.

The first layer of elastomer must be thoroughly rubbed into the substrate. Subsequent layers should be applied thinly to prevent air bubbles from being

trapped in the product. When repairing cracks, it is advisable to use additional steel mesh or fiberglass reinforcement. When protecting the surface, it is recommended to apply a coating 0'8-1,6 mm thick in 2-4 layers with a thickness of approx. 0,4 mm each. When repairing defects and tears, the product is applied to the desired thickness.

**Coverage rate.**

Using 1kg of the product you can obtain 0,7 m<sup>2</sup> coat of 1,2 mm thickness. To cover a surface of 1m<sup>2</sup> of 1,2 mm thickness - you need 1,43 kg of the product. Values given above are theoretical ones. In practice because of various roughness of the surface, decrements, irregularity – efficiency of the product may differ by ± 15%

**CHEMICAL RESISTANCE**

Medium	Chemical resistance
Hydrochloric acid 10 %	1
Nitrous acid 10%	1
Acetic acid 10%	2
Formic acid 10%	2
Sulphuric acid 10%	1
Saturated solution NaCl 80°C	1
Calcium hydroxide	1
Seawater	1
Mineral oil	2
Oxygen	3
Chlorine	3

- 1 - Contact continuously
- 2 - Short-term
- 3 - not recommended

Unless stated otherwise, the tests were carried out at 20°C. Tests were carried out after 168 hours at 20° C curing. Full table of chemical resistance is on the website of the company and from authorized representatives.

**OTHER INFORMATION****Storage**

The product should be stored in original packaging at a temperature of 10°C to 40°C.

In the case of exposure to a temperature of less than 10°C is required to hold the product at temperatures of 80°C for 2h or hold it at room temperature for a minimum of 7 days.

**Warning!**

The temperature of the elastomer during the mixing and application must be 20 ° C - 25 ° C.