



## Using FLEXICLAD® ER

### Elastomeric Repair & Resurfacing Polymer Composite.

**PLEASE READ THESE INSTRUCTIONS AND SAFETY DATA SHEET (SDS) CAREFULLY PRIOR TO USE**

FLEXICLAD® ER is a two component, 100% solids, trowelable polymer composite that has been specifically formulated to repair damaged flexible components such as conveyor belts, hoses, off-road tire sidewalls, etc.

FLEXICLAD® ER is a very unique material that requires no primer, bonds to most rubber / flexible materials and cures at ambient temperatures – no heat is required. It is safe and simple to use and no special tools are needed. It can be used to create irregular flexible gaskets on distorted flange faces or to create a resilient bond for metal, wood, etc. It can also be used to seal / caulk heat exchanger water boxes to tube sheet faces or to seal joints in condensate pans, cooling tower pans, etc. FLEXICLAD® ER is an indispensable addition to any maintenance engineer's tool box.

#### SURFACE PREPARATION

FLEXICLAD® ER should only be applied to clean, dry and well roughened surfaces.

1. Remove all loose material and surface contamination and clean with a suitable solvent which leaves no residue on the surface after evaporation such as acetone, MEK, isopropyl alcohol, etc.
2. Clean / roughen surface by appropriate means. Rigid surfaces (metal, concrete, etc.) should be prepared by grit blasting for large areas and unusual shapes or using a grinder, needle gun, etc. for more localized areas. Rubber substrates should be roughened by wire brushing, sanding, etc.
3. Remove any and all loose dust / debris after roughening the surface.

#### MIXING AND APPLICATION

For your convenience, the FLEXICLAD® ER Base and Activator have been supplied in precisely measured quantities. Simply pour the entire contents of the Activator container into the Base container and, using a spatula, putty knife or other appropriate tool, mix thoroughly until the FLEXICLAD® ER reaches a uniform streak-free black color. Apply the mixed material to the prepared surface using a stiff-bristled brush or flexible applicator.

#### Technical Data

Volume capacity: 250 g unit	14.1 in <sup>3</sup> / 233 cm <sup>3</sup>	
Mixed density	0.039 lbs / in <sup>3</sup> (1.07 gm / cc)	
Coverage rate @ 1/8 inch:		
250 g unit	113 in <sup>2</sup> / 730 cm <sup>2</sup>	
Shelf life	Indefinite	
Volume solids	100%	
Mixing ratio	Base	Activator
By volume	2	1
By weight	1.8	1

#### Working Life & Cure Times

Ambient Temperature		Working Life	Return to Service	Full Cure
41°F	5°C	50 min	8 hrs	5 days
59°F	15°C	30 min	6 hrs	4 days
77°F	25°C	16 min	3 hrs	3 days
86°F	30°C	12 min	45 min	36 hrs

#### Physical Properties

	Typical Values	Test Method
Hardness - Shore D	15	ASTM D-2240
Elongation	175%	ASTM D-2370
Tensile Shear Adhesion		
Steel	500 psi	35 kg/cm <sup>2</sup> ASTM D-1002
Copper	500 psi	35 kg/cm <sup>2</sup> ASTM D-1002
Both cases exhibited cohesive failure in the FLEXICLAD® ER itself.		
Note: Adhesion to most rubber substrates when properly prepared is greater than the cohesive strength of the rubber substrate.		

#### Chemical Resistance

Acetic acid (0-10%) . . . . . G	Nitric acid (0-10%) . . . . . G
Aviation fuel . . . . . G	Phosphoric acid (0-5%) . . . . . EX
Butyl alcohol . . . . . G	Phosphoric acid (5-10%) . . . . . G
Calcium chloride . . . . . EX	Potassium chloride . . . . . EX
Crude oil . . . . . EX	Propyl alcohol . . . . . G
Diesel fuel . . . . . EX	Sodium chloride . . . . . EX
Ethyl alcohol . . . . . G	Sodium hydroxide . . . . . EX
Gasoline . . . . . G	Sulfuric acid (0-10%) . . . . . EX
Hydrochloric acid (0-10%) . . . . . EX	Sulfuric acid (10-20%) . . . . . G
Hydrochloric acid (10-20%) . . . . . G	

EX - Suitable for most applications including immersion.  
G - Suitable for intermittent contact, splashes, etc.

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## **HEALTH & SAFETY**

Every effort is made to insure that ENECON® products are as simple and safe to use as possible. Normal industry standards and practices for housekeeping, cleanliness and personal protection should be observed. For further information and guidance, please refer to the detailed MATERIAL SAFETY DATA SHEETS (MSDS) supplied with the material and also available on request.

## **CLEANING EQUIPMENT**

Wipe excess material from tools immediately. Use acetone, MEK, isopropyl alcohol or similar solvent as needed.

## **TECHNICAL SUPPORT**

The ENECON® engineering team is always available to provide technical support and assistance. For guidance on difficult application procedures or for answers to simple questions, call your local ENECON® Fluid Flow Systems Specialist or the ENECON® Engineering Center.

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