ENECON®

Using CeramAlloy® EBX

PLEASE READ THESE INSTRUCTIONS AND MATERIAL SAFETY DATA SHEET (MSDS) CAREFULLY PRIOR TO USE

METALCLAD® CeramAlloy® EBX is a three component, 100% solids, polymer composite specifically formulated to provide effective repair and rebuilding characteristics on all types of equipment subject to severe abrasion.

CeramAlloy® EBX is a paste when mixed, so it is easily applied. When cured, however, CeramAlloy® EBX becomes a metal-hard, highly abrasion resistant compound engineered to repair deeply damaged components in the most aggressive abrasive environments.

SURFACE PREPARATION

CeramAlloy® EBX should only be applied to clean, firm, dry, and well roughened surfaces.

1. Remove all loose material and surface contamination.

2. Depending on the surface, solvent clean and / or remove contamination by abrasive blasting, steam cleaning, pressure washing, or other suitable means.

3. After removing all surface and sub-surface contamination, flush the area as necessary and allow to dry completely.

PRIMING THE SURFACE

A 250 gm unit of CeramAlloy® CL+AC is supplied as a primer in each 5 kg CeramAlloy® EBX system. Pour the contents of the Activator container into the Base container and mix thoroughly. Prime the area to be treated with the mixed CeramAlloy® CL+AC using a stiff-bristled brush. As a guide, an even thickness of approximately 10 - 12 mils should be obtained. Priming should be completed within 45 minutes of mixing. Overcoating with CeramAlloy® EBX should ideally be performed when the priming layer of CeramAlloy® CL+AC is just tacky and certainly within 8 hours of application.

Please note: CeramAlloy® CL+AC is available separately as a primer for the 20 kg units of CeramAlloy® EBX.

MIXING AND APPLICATION

For your convenience, the CeramAlloy® EBX Base, Activator and Aggregate have been supplied in precisely measured quantities to simplify mixing of full units. Should a small amount of material be required, measure out 5 parts Base and 2 parts Activator and 18 parts Aggregate, by volume (5:2:18, v/v).
To facilitate mixing of full units, a mechanical mixing device is strongly recommended. Combine the Base and Activator in the large, plastic bucket and, with the mixer running, slowly add the Aggregate.
Apply the mixed CeramAlloy® EBX to the prepared and primed surface using a trowel, putty knife, or other appropriate tool, pressing well to insure intimate contact and force out any air entrapped as a result of the mixing technique and/or device used.

Technical Data

Volume capacity per 5 kg.		124 in^3 / 2032 cc	
Mixed density		0.089 lbs per in^3 / 2.46 gm per cc	
Coverage rate per kg. @ 6-7 mils.		4.31 ft^2 / 0.40 m^2	
Shelf life		Indefinite	
Volume solids		100%	
Mixing ratio	Base	Activator	Aggregate
By volume	5	2	15
By weight	7	2	20

Cure Times

Ambient Temperature		Working Life	Full Mechanical	Chemical Immersion
59°F	15°C	30 min	48 hrs	3 days
77°F	25°C	20 min	24 hrs	2 days
86°F	30°C	15 min	16 hrs	1 day

Physical Properties

	Typical Values		Test Method
Compressive strength	13,000 psi	910 kg/cm^2	ASTM D-695
Flexural strength	5,000 psi	350 kg/cm^2	ASTM D-790
Hardness - Shore D		86	ASTM D-2240
Tensile Strength	2,100 psi	147 kg/cm^2	ASTM D-2370
Tensile Shear Adhesion (CL+AC primer to substrate)			
Steel	4000 psi	280 kg/cm^2	ASTM D-1002
Aluminum	2500 psi	175 kg/cm^2	ASTM D-1002
Copper	3000 psi	210 kg/cm^2	ASTM D-1002
Stainless steel	4100 psi	287 kg/cm^2	ASTM D-1002

Chemical Resistance

Acetic acid (0-10%)	G	Methyl alcohol	G
Ammonium hydroxide (0-10%)	EX	Mineral oil	EX
Aviation fuel	EX	Nitric acid (0-10%)	EX
Butyl alcohol	EX	Nitric acid (10-20%)	G
Calcium chloride	EX	Phosphoric acid (0-10%)	G
Crude oil	EX	Potassium chloride	EX
Diesel fuel	EX	Propyl alcohol	EX
Ethyl alcohol	G	Sodium chloride	EX
Gasoline	EX	Sodium hydroxide	EX
Heptane	EX	Sulfuric acid (0-10%)	EX
Hydrochloric acid (0-10%)	EX	Sulfuric acid (10-20%)	G
Hydrochloric acid (10-20%)	G	Toluene	G
Kerosene	EX	Xylene	EX

EX - Suitable for most applications including immersion. G - Suitable for intermittent contact, splashes, etc. NR- Not recommended

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

Clean tools, equipment and overspray, while wet, with warm soapy water. Dried residue can be cleaned with solvents such as mineral spirits or alcohol.

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.

All information contained herein is based on long term testing in our laboratories as well as practical field experience and is believed to be reliable and accurate. No condition or warranty is given covering the results from use of our products in any particular case, whether the purpose is disclosed or not, and we cannot accept liability if the desired results are not obtained.

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Printed in the USA
July, 2013