

From: "Swartzwelder, Robert B." <Robert.Swartzwelder@pseg.com>  
To: <RICHARD.A.MASTEN@sargentlundy.com>  
Date: 04/10/2010 01:52 PM  
Subject: FW: Aux Feed Pipe Coating

Rich  
Here is the Enecon Recommendations. Jim is good with 2 coats vs. 3. Point is the more coats the better chance of covering pin holes  
bob

**From:** Swartzwelder, Robert B.  
**Sent:** Friday, April 09, 2010 2:28 PM  
**To:** 'Matt Goldberg'  
**Subject:** RE: Aux Feed Pipe Coating

Matt- Thanks  
We will be in touch.  
bob

**From:** Matt Goldberg [mailto:mattgoldberg@enecon.com]  
**Sent:** Friday, April 09, 2010 2:20 PM  
**To:** Swartzwelder, Robert B.  
**Subject:** Aux Feed Pipe Coating

Bob, a couple of different scenarios and suggestions.

- 1) If the pipe sections are flanged, try to do the coating of the sections outside the trench and then install.
- 2) If the pipe sections are welded, apply the coating up to 3" of the weld area, install, prep and coat the uncoated sections.

In either case abrasive blasting the sections for prep would always be the best surface preparation suggestion.

A) However, if this is not possible a hand grinder with aluminum oxide pads to roughen the surface and then a solvent cleaning would be the next best surface prep method.

Then apply 3 coats of CeramAlloy CL+AC to the areas that have been prepped. I would suggest a Blue-Gray-Blue color coating process.

B) If only mild prep with light sand paper/solvent cleaning is undertaken, then I would suggest a Primer coat with Superbond and then 3 coats of the CeramAlloy CL+AC.

The materials master are:

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CeramAlloy CL+AC Blue- 1037109  
CeramAlloy CL+AC Gray- 1037110  
Superbond- 1023056

I will be on site Tuesday, if you would like I would certainly meet with you to discuss further. If you need to discuss at any point prior to then please call me or email. I ALWAYS have my phone with me during outage season and will respond back ASAP!

Regards,

**ENECON Corporation**  
*The Flow  
Systems Specialists*

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Your Repair and Maintenance Needs*

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**Matt Goldberg**  
*Vice President  
Eastern Operations*

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Fax: 215-933-5345  
Email: mattgoldberg@enecon.com

"Well done is always more important than well said!"

Benjamin Franklin

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*Revolutionary products . . .*

*... for rebuilding, resurfacing and protecting all types of fluid flow machinery, equipment and structures.*

**METALCLAD**

# CeramAlloy™ CL+AC

(Advanced Composite)

Apply by Brush, Roller  
or Flexible Applicator

Requires No Heat

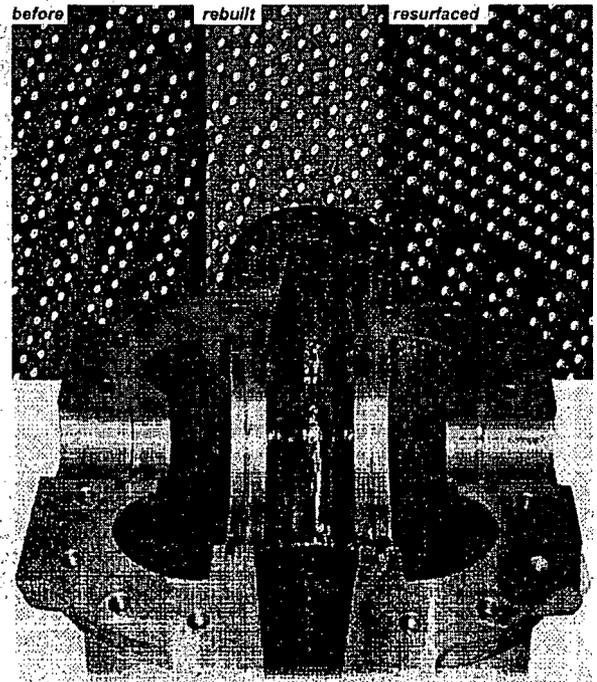
Unlimited Shelf Life

100% Solids

Safe & Simple To Use

High Performance Polymer  
Composite for resurfacing  
and protecting all types of  
fluid flow equipment from  
aggressive erosion and  
corrosion damage.

**Outstanding erosion/corrosion resistance!**  
**Repairs Damaged Equipment — Protects New Components.**  
**The Most Advanced Polymer Composite Coating System Available!**

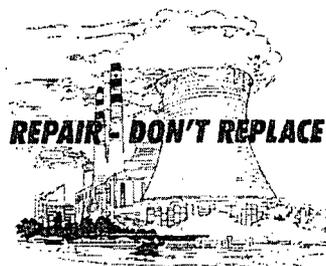


METALCLAD CeramAlloy™ CL+AC is a two component, 100% solids, liquid polymer composite used for repairing, resurfacing and coating components to provide outstanding fluid flow erosion and corrosion resistance.

When mixed, METALCLAD CeramAlloy™ CL+AC is a viscous liquid. CL+AC cures to a hard, ceramic-like material with an extremely smooth surface finish.

**Heat Exchanger Tube Sheets & Water Boxes, Pumps,  
Valves & Pipework, Housings & Tanks, Cooling Towers, etc.**

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The Fluid Flow  
Systems Specialists.

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Tel: 516 349 0022 · Fax: 516 349 5522

Email: [info@enecon.com](mailto:info@enecon.com)

6 Platinum Court · Medford, NY 11763-2251

## Technical Data

Volume capacity per kg.	36 in <sup>3</sup> / 592 cc	
Mixed density	0.061 lbs per in <sup>3</sup> / 1.69 gm per cc	
Coverage rate per kg. @ 12 - 15 mils	14 - 16 ft <sup>2</sup> / 1.4 m <sup>2</sup>	
Shelf life	Indefinite	
Volume solids	100%	
Mixing ratio	Base	Activator
By volume	3.3	1
By weight	6	1

## Cure Times

Ambient Temperature	Working Life	Machining Light Load	Full Mechanical	Chemical Immersion
41°F 5°C	4 hrs	48 hrs	96 hrs	10 days
59°F 15°C	2 hrs	24 hrs	48 hrs	5 days
77°F 25°C	1 hr	12 hrs	24 hrs	3 days
86°F 30°C	40 min	8 hrs	20 hrs	2 days

## Physical Properties

	Typical Values		Test Method
Compressive strength	13,500 psi	945 kg/cm <sup>2</sup>	ASTM D-695
Flexural strength	8,000 psi	560 kg/cm <sup>2</sup>	ASTM D-790
Izod impact strength	1.3 ft lbs/in	0.69 j/cm	ASTM D-256
Hardness - Shore D	85		ASTM D-2240
Tensile Shear Adhesion			
Steel	4000 psi	280 kg/cm <sup>2</sup>	ASTM D-1002
Aluminum	2500 psi	175 kg/cm <sup>2</sup>	ASTM D-1002
Copper	3000 psi	210 kg/cm <sup>2</sup>	ASTM D-1002
Stainless steel	4100 psi	287 kg/cm <sup>2</sup>	ASTM D-1002
Surface resistivity	1 x 10 <sup>15</sup> ohms		ASTM D-257
Volume resistivity	1 x 10 <sup>15</sup> ohm/cm		ASTM D-257
Dielectric constant	7.5		ASTM D-150
Dielectric strength	652 volts/mil		ASTM D-115
Breakdown voltage	6.1 Kv		ASTM D-115

## Chemical Resistance

Acetic acid (0-10%)	EX	Methyl alcohol	G
Acetic acid (10-20%)	G	Methyl ethyl ketone	G
Acetone	G	Nitric acid (0-10%)	EX
Aviation fuel	EX	Nitric acid (10-20%)	G
Butyl alcohol	EX	Phosphoric acid (0-5%)	EX
Calcium chloride	EX	Phosphoric acid (5-10%)	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.

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## Using CeramAlloy™ CL+AC

**Surface Preparation** - METALCLAD CeramAlloy™ CL+AC should be applied only 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 abrasive blasting.
3. If necessary, apply moderate heat and/or allow the component(s) to 'leach' to remove ingrained contaminants.
4. Thoroughly roughen surfaces by abrasive blasting to achieve a 'white metal' degree of cleanliness and an anchor pattern of 3 mils.

Please note: In situations where adhesion is not desired, such as when making molds and patterns or to ease future disassembly, apply a suitable release agent (mold release compound, paste wax, etc.) to the appropriate surfaces.

**Mixing & Application** - For your convenience, the METALCLAD CeramAlloy™ CL+AC 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 CeramAlloy™ CL+AC reaches a uniform, streak-free color. Apply the mixed material to the prepared surface using a stiff-bristled brush, applicator or roller. As a guide, an even thickness of approximately 12-15 mils per coat should be obtained. A minimum two coat application is required. Overcoating should ideally be performed when the previously applied coat is just surface tacky; and certainly within 8 hours of the previous coat.

**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.

Please refer to the detailed MATERIAL SAFETY DATA SHEETS (MSDS) supplied with the material (also available on request) for more information.

**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.

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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**Spence, Kyle T.**

**From:** Kriczky, Justin M.  
**Sent:** Friday, April 23, 2010 12:28 PM  
**To:** Spence, Kyle T.; Masten, Richard  
**Subject:** FW: CL curing time prior to backfilling

**From:** Matt Goldberg [mailto:mattgoldberg@enecon.com]  
**Sent:** Friday, April 23, 2010 10:46 AM  
**To:** Melchionna, James A.; Andrew A. Janczak; Mike Tedesco  
**Cc:** Swartzwelder, Robert B.; Kriczky, Justin M.; Ambrosino, Michael; Moore, Ronald; Speer, Samuel E.; Luh, Gary G.  
**Subject:** RE: CL curing time prior to backfilling

Jim, I can confirm that once the CL+ is tack free that you can bury the pipes CLSM. This should not pose any threat to the applied ENECON systems. Please let me know if you have any further questions or comments.

Regards,

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Industrial Strength Solutions for All Your Repair and Maintenance Needs

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Email: mattgoldberg@enecon.com

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**"Well done is always more important than well said!"**

**Benjamin Franklin**

**From:** Melchionna, James A. [mailto:James.Melchionna@pseg.com]  
**Sent:** Friday, April 23, 2010 10:22 AM  
**To:** Andrew A. Janczak; Mike Tedesco  
**Cc:** Swartzwelder, Robert B.; Kriczky, Justin M.; Matt Goldberg; Ambrosino, Michael; Moore, Ronald; Speer, Samuel E.; Luh, Gary G.  
**Subject:** CL curing time prior to backfilling  
**Importance:** High

Mike,

Per our conversation the other morning - We need some correspondence that states that we can backfill once the CL surface is "Tack-Free". We will be using CLSM (aka flowable fill) to do the backfilling. Can you provide that as soon as possible? This is time critical. Please reply to all when you send it.

Thanx Jim Melchionna  
856-339-5514  
856-371-0480  
Pager (b)(6)

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Remember - ENECRETE® WS is the water sealing component of our leak and seep stopping system - see information on ENECRETE® WP (the water plugger) to stop running leaks and for pointing and grouting...

## Revolutionary products . . .

... for rebuilding, resurfacing and protecting all types of fluid flow machinery, equipment and structures.

# ENECRETE® WS

*the water sealer...*

Protects concrete, mortar, block and brick

Waterproofs and seals

Excellent adhesion

Simple to use

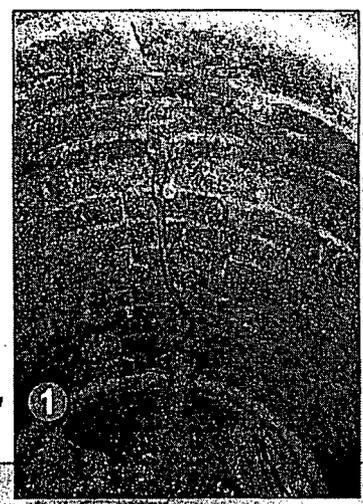
ENECRETE® WS combines the best characteristics of traditional cementitious materials with the advanced adhesion and protection of the highest quality polymers. This extraordinary material provides an easy-to-use compound that permanently seals brick, concrete and block from infiltration and exfiltration.

## The jobsite waterproofer and leak sealer that coats, fills, seals & protects

ENECRETE® WS is a protective and waterproofing product for masonry structures. It employs a multiple curing reaction process to impart its exceptional properties. The reactions that occur upon mixing combine the hydration reaction of calcium / silica / aluminum cement, for strength and durability, with the film-forming reaction of a polymer adhesive, for waterproofing, chemical resistance and adhesion.

ENECRETE® WS can be used as a negative side / positive side flow preventive coating and as a repair mortar, depending on the component mixing ratio used.

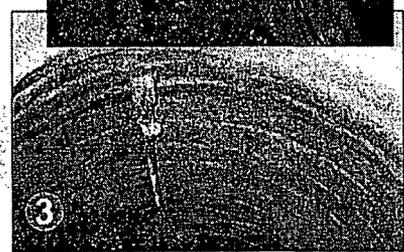
WS is a dual-component product that is easy to prepare and apply in the field. One product that can be used to solve two common problems in industry — concrete attack and water infiltration.



1. The problem - walls under chemical attack with active water leaks...

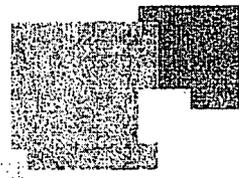


2. After active leaks have been plugged with ENECRETE® WP, the walls are brushed with two coats of WS - the water sealer.



3. The result - protected, sealed and waterproofed - ENECRETE® WS has sealed and protected in a few easy steps.

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www.enecon.com

# ENECRETE® WS

Sealing and waterproofing for masonry structures.

## SURFACE PREPARATION:

ENECRETE® WS should only be applied to clean, damp, firm and roughened surfaces.

1. Remove all loose material and surface contamination, such as grease, oil, mold, algae and other coatings.
2. Depending on the surface, remove contamination by detergent and/or solvent washing, abrasive blasting, steam cleaning, pressure washing or other suitable methods.
3. After removing all surface and sub-surface contamination, flush the surface with clean water and allow surface water to dissipate.

## MIXING:

For your convenience, the ENECRETE® WS powder and liquid have been supplied in precisely measured quantities to simplify mixing. Remove the powder and liquid from the bucket, pour the liquid into the bucket and slowly add the powder to the liquid as you are mixing. To facilitate mixing of a full unit, a mechanical mixing device is recommended, such as a drill and a general purpose mixer blade.

Brushable consistency — add the entire gallon container of liquid to the bucket.

Trowelable consistency — add only enough liquid to obtain the desired consistency.

## APPLICATION:

ENECRETE® WS should be applied over a damp surface with no standing water present. Apply with a stiff, short bristle brush, such as a wallpaper paste brush. It should be applied in 2 coats, with each coat approximately 1/16 inch thick. The second coat should be applied perpendicular to the first coat. Recoat time at 75 °F is approximately 1 1/2 hours. Do not apply if the surface or air temperature is below 45°F.

## CLEAN UP:

Clean all tools with water, immediately after use. Cured product must be mechanically removed.

Technical Data			
Volume capacity per 15 kg.	.39 ft <sup>3</sup> 675 in <sup>3</sup> 11060 cc		
Coverage per 15 kg kit	65 - 75 ft <sup>2</sup> @ 1/16" depending on surface roughness		
Shelf life	18 Months in unopened, original containers.		
Mixing ratio	POWDER	LIQUID	
by volume	1.3	1.0	
by weight	3.3	1.0	

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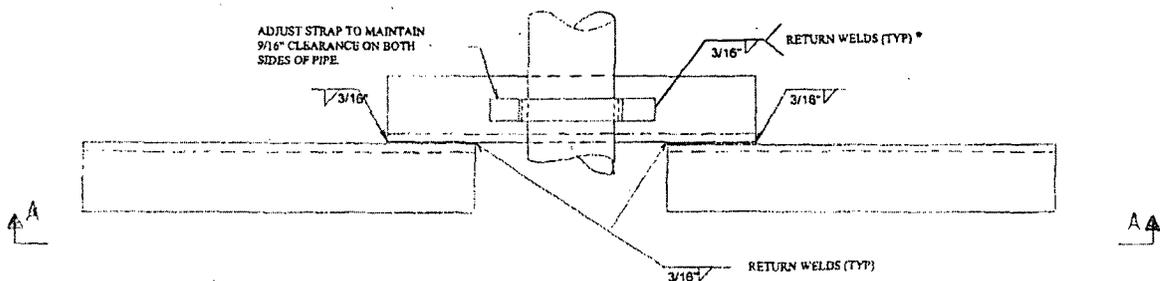
Every effort is made to insure that ENECON® products are as simple and safe to use as possible. Normal industry standards and practices for housekeeping, cleanliness and personal protection should be observed. Please refer to the detailed MATERIAL SAFETY DATA SHEETS (MSDS) supplied with the material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

**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.

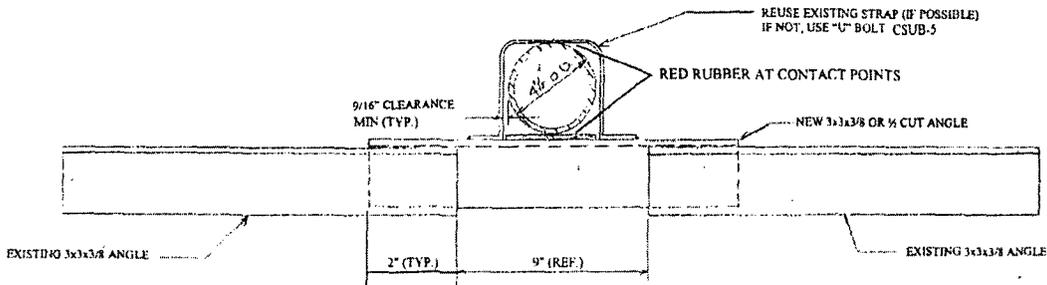
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M354-D-4037 FOR BOLTING INFORMATION



PLAN VIEW



SECTION A - A

BURIED AUXILIARY FEEDWATER PIPE - ALTERNATE SUPPORT DETAIL

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