PLEXI-CHEMIE

Hi-Performance Seamless Flooring Solutions
(904) 693-8778 Office * (904) 693-8700 Fax
JSEB/WMBE Certified Company

April 28, 2021

Emilie Enzmann
Accounting Administrator Bureau of Corrections
Indian River County Sheriff's Office
4055 41st Avenue
Vero Beach, Fl. 32960

Re: IRC Jail Kitchen Floor Replacement project measuring 4500 SQFT.

Emilie,
Thank you for the opportunity to attend a pre-bid walk-thru to quote on the IRC Jail Kitchen Floor Replacement project. We are quoting the Plexi-Chemie Inc. brand of resinous epoxy flooring. Plexi-Chemie is a manufacturer and installer of resinous epoxy flooring and walls.

The Floor will be delivered as follows:

- **Dumpster (IRC)**– Provided by **IRC**
- **Removal (IRC)** – ***All electrical including unplugging and plugging of cords, plumbing and gas disconnect and connect, and any cutting or welding is to be done by the County. Removal and installation of the large u-shaped stainless sink(s) are to be done by the County.***
- **Demolition** –removal of the existing epoxy flooring and quarry tile and setting bed (Dish Pit), broom swept and vacuumed.
- **Surface Prep-** shot blast, scarify, and diamond grind to achieve a clean workable profile.
- **Prime-** PlexiGlaze #4 Primer
- **Pitch and Fill-** with 1-2 inches of PlexiClad Deep Fill High Strength Epoxy Mortar Underlayment @ ***Dish Pit, Fryer Cooktop, and Ovens areas.*** This is to acquire positive drainage and give additional heat resistance to the floor.
- **Install –** the PlexiCrete HD Cementitious Urethane Flooring System @ 3/8th inch thick in Red, Gray, or Quartz finish. This includes the 5-inch integral cove base. Once cured…..
- **Install Grout Coat-**PlexiCoat F Novalac Epoxy @ 15 mils
- **Install Topcoat** – PlexiCrest XP Polyaspartic Urethane Top Coat in Red or Gray.
- **Warranty** – This project carries a 5-year warranty

The investment for 4,500 SQFT square feet @ $17.66 per square foot is $79,470.00. This includes the demolition of existing floor, all surface preparation by mechanical means only, pitch and fill (1-2 inches of High Strength PlexiClad Deep Fill Epoxy Mortar Underlayment (for Dish Pit, Fryer Cooktop and Oven Areas totaling 960 SQFT), the PlexiCrete HD Urethane Mortar Flooring System, 800 lineal feet of 5-inch-high integral cove base, grout and top coats.

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We are a state-certified woman-owned minority business enterprise (WMBE, WDBE). Price is for one mobilization. We hope to win the job!

Sincerely,

Joanne T. Grant
904-477-9902

606-6 Lane Avenue North, Jacksonville, FL 32254
www.plexichemie.net

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Product Data Sheet For:

PLEXI*CLAD* DEEPFILL

DESCRIPTION

PlexiClad DeepFill is 100% solids, power-troweled epoxy filler. PlexiClad DeepFill is installed at a thickness of ¼" – 2" thick depending on the erosion of the concrete, required patch or required fill. It is designed to rehabilitate worn concrete and as a protective filler or pitching material in preparation for coatings or overlayments. PlexiClad Deep Fill exhibits exceptional strength while offering excellent chemical resistance.

TYPICAL USES

PlexiClad DeepFill is used as a deep fill epoxy grout material in heavy-duty forklift traffic aisles, high abrasion and impact areas, wet processing areas, and as a superior deep fill grout that offers a resin rich install. It is used to level and pitch new and existing surfaces prior to resinous flooring installation.

FEATURES

VOC compliant, chemical resistant, high impact resistance, high abrasion resistance, high compressive strength, and impact resistant.

FORMULATION

Each unit is comprised of 2 gallons of Part A (resin), 1 gallon of Part B (activator), Part C (color pack), and 125 lbs. of Part D (graded silica aggregate and 50 lbs. 1/8" – 1/4" pea gravel).

DURABILITY

PlexiClad DeepFill is extremely durable and performs extremely well in areas requiring high impact and abrasion resistance. PlexiClad DeepFill also works well in spillage and wet processing areas, as well as areas where sanitation and dust free environments are required.

COVERAGE

Coverage @ ¼" (125 - 150 square feet per unit).
Coverage @ 1" (50 – 75 square feet per unit).
Coverage @ 2" (18 – 24 square feet per unit).

SURFACE PREPARATION

Remove oil, grease, chemicals and contaminants by mechanical preparation. Preferred method of mechanical preparation is shot-blasting, diamond grinding, and scarification. Use hand-held diamond grinders in hard-to-reach areas.

MIXING

Premix Part A (resin), Part B (activator), and Part C (color pack) in a running rotary drum mixer. Mix parts together for approximately 30 seconds. Slowly add Part D (aggregate), and mix until a lump-free, thoroughly wetted-out matrix is obtained.

INSTALLATION

Install PlexiClad DeepFill on primed substrate. Screed by hand with screed bar. Immediately after placing, material must be power-troweled or hand troweled to a minimum of ¼" thickness.

CURE RATE

6-8 hours prior to application of troweled epoxy or urethane mortar.

PHYSICAL PROPERTIES

Compressive Strength	ASTM C-579	7,800 psi
Tensile Strength	ASTM C-307	1,700 psi
Abrasion Resistance CS-17 Wheel, 1 kg load	ASTM D-1044	<0.10 gm loss max
Water Absorption	ASTM C-413	0.32%
Flexural Strength	ASTM C-580	4,200 psi
Shore D Hardness	ASTM D-2240	85
Heat Distortion Degrees F		175°F
Bond Strength to Concrete (dry)		100% substrate failure
Pot Life	@ 75°	45 mins.

WARRANTY

Plexi-Chemie Inc. warrants its products to conform to its manufacturing standards. Plexi-Chemie Inc. will replace or refund the purchase price of non-conforming product at the seller's option; such remedy being exclusive of all others and sole remedy available to the buyer. Buyer hereby expressly waives claim to additional damages. Any claim under this warranty must be made in writing within 7 days of discovery of non-compliance and no later than one year from the date of delivery of product. No representative, distributor or applicator of these products is authorized to modify product data or warranty.

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Product Data Sheet For:

Plexi*Crete* HD

Description:
Plexi*Crete* HD is a self-priming four component, 100% solids, high performance urethane mortar flooring system comprised of a urethane binder, pigments, powders and cementitious aggregates. This system is installed at a nominal thickness ranging from 3/16", 1/4", 3/8" to 1/2" depending on application requirements. It is designed for a variety of applications, new or damaged, on concrete. This system provides conventional protection plus **thermal-shock resistance**, with a wide range of both caustic and acid resistance.

PLEXI*CRETE* HD ADVANTAGES:

- **Chemical Resistance** – polyurethane technology provides superb protection against caustics, organic and inorganic acids, solvents and most chemicals used today in industry.
- **Thermal Shock Resistance** – Plexi*Crete* HD and concrete have a similar coefficient of thermal expansion from under -50°F to 265°F. Plexi*Crete* HD withstands continuous hot water washdowns.
- **Impact Resistance** – while epoxy and vinyl esters can crack and spall, Plexi*Crete* HD will absorb an impact and distribute the force throughout the system.
- **Downtime** – no primers or sealers are required due to the **resin-rich** properties. Fast curing in less than 6 hours. Full cure in 12 hours.
- **Non-Slip** – the surface can be customized to any facility requirements…from decorative self-leveling to aluminum-oxide solid color broadcast. ADA compliant under wet and dry conditions.
- **Odorless Materials** – no tainting of food products due to freedom from objectionable odors during application. VOC compliant.
- **Thermal Comfort** – Plexi*Crete* HD provides superior insulation over concrete.
- **Hygiene** – Plexi*Crete* HD eliminates tile joints, minimizes cracking as occurs in traditional monolithic flooring, and eliminates potential bacteria growth.
- **Hydrostatic Pressure** – Plexi*Crete* HD will withstand up to 14-20 lbs. of vapor transmission in the slab without delamination. It also allows the concrete to breathe and is a solution for many moisture problems
- **Color Stable** – Plexi*Crete* HD will remain color stable and will not change color over time.

Areas of Application:

- Food & Beverage *(FDA/USDA Accepted)*
- Bakery
- Food Processing
- Dairy
- Meat Processing
- Soda & Juice Facilities
- Brewery
- Prepared Foods
- Commercial Kitchens
- Chemical Processing
- Animal Rooms
- Secondary Containment
- Pharmaceutical
- Pulp & Paper

Chemical Resistance:
Plexi*Crete* HD flooring system resists spills and in many cases immersion of:

Acid	Alkali
Hydrochloric	KOH
Phosphoric	Ammonium Chloride
Sulfuric	Sodium Hydroxide

Also resists hot fatty oils, diesel fuel, and organic solvents (MEK, Acetone, Toluene)
Full chemical resistance chart available upon request

Packaging:
1 unit is comprised of:

- 128 oz. of Plexi*Crete* Resin (Part A)
- 100 oz. of Plexi*Crete* Hardener (Part B)
- 8 oz. of Color Pack
- 50 lb. bag of Plexi*Crete* HD Aggregate

Colors:
Unlike competitors' products, Plexi*Crete* HD is available in the following colors:

- Tile Red
- Granada Gray
- Blue
- Green
- Saber Gray

Surface Preparation:
Plexi*Crete* HD and all of our high performance resurfacing systems always require surface preparation by mechanical means only: Shotblasting and diamond grinding. **No other preparation method is acceptable for the long-term success of any floor.**

Installation:
Plexi*Crete* HD requires a degree of knowledge of industrial flooring that is unique to urethane mortars. This includes proper preparation of surface and preparation of Plexi*Crete* installation. Please contact us for a copy of our comprehensive installation instructions.

Physical Properties:

Compressive Strength	ASTM C-579	10,500 psi
Tensile Strength	ASTM C-307	2,500 psi
Coefficient of Thermal Expansion	ASTM C-531	1.6 x 10(-5) °F
Density	ASTM C-905	130 lbs./ft3
Resistance to Fungi Growth	ASTM G-21	passes, rating of one
Impact Resistance	ASTM D-2794	no visible damage or deterioration at min 160 inch-pounds
Comprehensive Modulus	ASTM C-469	1.7 x 10(5) psi
Flexural Strength	ASTM C-580	2,625 psi
Flexural Modulus of Elasticity	ASTM C-580	2.6 x 10(6) psi
Thermal Conductivity	ASTM C-177	6.8 BTU-in/hr-ft2°F
Water Absorption	ASTM C-413	<0.03%
Abrasion Resistance	ASTM D-4060 @ 1000 cycles	0.05 mg loss
Slip Resistance ADA Minimum	ASTM F-1679	Greater than .05 (All textures wet & dry)
Adhesion	ASTM D-4541	500 psi 100% concrete failure, exceeds concrete
Hardness	ASTM D-2240	80-84
Heat Resistance		≥250°F (Continuous exposure)
Bond Strength	ACI 503R	>400 psi 100% concrete failure
Flammability	ASTM E-648	Class 1 – Self Extinguishing

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Product Data Sheet For:

PLEXI*COAT* F
NOVOLAC

Description:
Plexi*Coat* F is a 100% solids, chemical resistant novolac epoxy, clear or pigmented, used to coat or line concrete, masonry, or other polymeric surfaces where high chemical and thermal protection is required. Plexi*Coat* F is designed for service in harsh chemical environments. Plexi*Coat* F is used to upgrade the chemical and heat resistance of Plexi*Quartz* and Plexi*Chip* floors, as a binder in troweled surfacers and other applications. Plexi*Coat* F provides excellent chemical resistance for primary and secondary containment and will provide exceptional service near high temperature processes areas.

Certain exposures will require Plexi*Crete* (urethane mortar) and Plexi*Coat* P (hi-functioning hybrid resin). Plexi*Coat* F is available in clear, pigmented regular and fast cure and flake.

Features and Benefits:
- Plexi*Coat* F has excellent chemical resistance to organic and inorganic chemicals.
- Positive cure in cool and damp conditions.
- 100% non-volatile & odorless for applications in occupied facilities.
- Materials comply with USDA requirements for use in federally inspected Meat and Poultry Plants.
- Plexi*Coat* F is an excellent coating for concrete, steel, aluminum and wood surfaces. It is formulated to provide better chemical resistance to dilute acids, caustics and solvents than conventional epoxy systems.
- Plexi*Coat* F can be used as a coating system where high chemical resistance is required.
- Plexi*Coat* F can be used with a quartz or chip broadcast system.
- Plexi*Coat* F can be used as a mortar binder for very heavy duty and chemical resistant flooring.

Typical Applications:
- Cafeterias, restaurants and hospital rooms
- Pharmaceutical facilities
- Food plants of all types
- Beverage and processing plants
- Institutional kitchens
- Battery storage areas
- Hangar floors
- Animal care facilities
- Labs- floors and walls
- Secondary containments

Limitations:
Do not apply in temperatures less than 40°F or greater than 95°F. Material cures slower at cooler temperatures and working time will be reduced at higher temperatures. Both components should be stored at ambient temperatures between 65°F and 80°F. Do not apply to slabs on grade unless vapor mitigation issues have been addressed.

Surface Preparation:
Surface must be prepared to remove all sealers, curing compounds, oils, greases and other contaminants and laitance. As a standard rule, stand mix concrete should be cured a minimum of 28 days.

Cure Schedule @ 75°F:

Pot Life*	35 minutes
Tack free*	6 hours
Foot traffic*	12 hours
Forklift traffic*	24 hours
Full chemical exposure	7 days

*Low temp products will cure approximately 40% faster than standard cure.

Service Temperature (Mortar Systems):
200°F (immersion)
350°F (dry heat)

Packaging:
2 to 1 ratio
Packaged in 3 and 15 gallons units.
A & B mixed viscosity is 800 cps.

Coverage:
Determined by type of service but a generally Plexi*Coat* F should be applied at a minimum of 2 coats as a coating, at a minimum of 10 mils per coat (160 sq. ft./gal. minimum). PlexiCoat F Novolac can be used as a binder for 1/8" inch shop floors, or ¼" inch troweled epoxy mortars.

Installation:
1. ***As a coating system:*** Premix parts A&B separately prior mixing A&B together for approximately 2 minutes. Always mix by mechanical means. Always mix mechanically until a uniform blend is obtained.

2. ***As a binder for PlexiQuartz:*** Follow standard color quartz application techniques.

3. ***PlexiClad troweled mortar:*** See Plexi*Clad* data sheet.

Typical Physical Properties:

Compressive Strength	ASTM D-695	14,000 psi
Tensile Elongation	ASTM D-638 15-20%	2875 psi
Flexural Strength	ASTM D-790	9,600 psi
Abrasion Resistance CS-17 Wheel, 1000 g load 1000 cycles	ASTM D-1044	107 mg loss
Hardness	ASTM D-2240	66+
Bond Strength to Concrete (dry)	ASTM D-4541	475 psi Concrete Failure
Heat Distortion	ASTM D-648	150°F
Elongation at Break	ASTM D-638	10%
Water Absorption	ASTM D-570	0.09%
VOC Content		0 g/L

Plexi*Coat* F Chemical Resistance Guide:

I: Suitable for continuous service or immersion.
C: Suitable for secondary containment (72 hour immersion) or intermittent immersion, followed by regulated clean-up.
L: Limit use to splash and spillage, followed by regulated spill removal al and clean-up within four hours.
T: Consult Plexi-Chemie's Technical Department for evaluation assistance.
NR: Not recommended

ACETIC ACID – 50%	C	BROMINE WATER – 5%	L	SEA WATER	I
ACETONE	L	BUTADIENE	T	SILVER NITRATE	I
ADIPIC ACID	I	BUTYLACETATE	C	SKYDROL 500 B	I
ALCOHOL (ETHYL)	C	BUTYALCOHOL	C	SODIUM HYDROXIDE – 35%	I
ALCOHOL (METHEL)	C	CALCIUM CARBONATE	I	SODIUM HYPOCHLORITE – 5%	C
ADIPIC ACID	I	CALCIUM CHLORIDE	I	SULFURIC ACID – 20%	I
ALCOHOL (ETHYL)	C	CASTOR OIL	I	TOLULENE	C
ALCOHOL (METHEL)	C	CHLORINE DIOXIDE	NR	TOLUENE SULFONIC ACID	C
ADIPIC ACID	I	CHLORINE WATER (SATURATED)	NR	1 – 1 – 1 TRICHLOROETHANE	C
ALCOHOL (ETHYL)	C	CITRIC ACID	I	TRICHLOROETHANE (TCE)	C
ALCOHOL (METHEL)	C	CORN OIL	I	TRICHLORACETIC ACID – 20%	NR
BENZALDEHYDE	NR	METHYL ISOBUTYL KETONE	C	WATER (DISTILLED AND DEMINERALIZED)	I
BENZENE	C	NITRIC ACID – 10%	L	WHITE LIQUOR (PULP AND PAPER)	I
BENZENE SULFONIC ACID – 50%	C	NITRIC ACID – 40%	NR	XYLENE	C
BENZYL ALCOHOL	NR	NITRIC ACID – 60%	NR	SEA WATER	I
BENZYL CHLORIDE	T	OILS (ANIMAL)	I	SILVER NITRATE	I
BORIC ACID	I	OILS (MINERAL)	I	SKYDROL 500 B	I
BRINE	I				

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Product Data Sheet For:

Plexi*Crest* XP

Polyaspartic (Ester) Urethane Coating

DESCRIPTION

Plexi*Crest* XP Polyaspartic (Ester) Urethane, clear or pigmented, is a state of the art high solid, no VOC's (Volatile Organic Compound), aliphatic polyurea that was developed for UV stable (colorfast) polyurea flooring applications as a primer, body coat, grout coat, top coat or a standalone coating. Plexi*Crest* XP can also be installed as a clear topcoat over a quartz or flake broadcast system. This new generation polyurea displays fast cure times and excellent adhesion characteristics. Plexi*Crest* XP is designed to be quick gelling (15 minutes) in order to optimize leveling and wetting properties. This state of the art polyurea elastomeric displays excellent chemical resistance, water insensitivity, and UV resistance (in any color) at a wide range of temperatures. Plexi*Crest* XP will provide a glossy, smooth finish when fully cured. Aggregate can be broadcast into this self-leveling material to provide a non-skid surface. Plexi*Crest* XP emits virtually no odors and can be applied indoors with minimal disturbance contributed to high V.O.C. levels found in most epoxies and polyurethanes. This product meets USDA and FDA specifications. Plexi*Crest* XP can be applied at temperatures as low as minus -20° F and as high as 85° F.

FEATURES

- VOC Compliant
- Excellent UV Resistance (non-yellowing)
- Fast Setting (within 20-30 minutes)
- High Gloss/ Water Clear Finish
- High Strength
- Greater Abrasion/Chemical/Impact Resistance
- Excellent Weatherability
- Good Resiliency/Can be pigmented
- One day install time
- High build thickness in one coat
- Forms excellent bond
- No out-gassing

AVAILABLE COLORS

*Clear, most primary colors (including white)
*Custom tinting available

PACKAGING / COVERAGE

10-gallon kit: 1 five-gallon pail of Part A and 1 five-gallon pail of Part B

TYPICAL PROCESSING PROPERTIES

Gel Time (75° F) Pot Life	15-20 minutes
Tack free time (75° F)	45 minutes
Open to foot traffic	2 hours
Volume Ratio	1A:1B

STORAGE

Material containers should always be stored indoors in a minimum temperature range of 68°F – 85°F (20° C – 29°C). The product has a shelf life of 1 year from the date of manufacture.

MIXING

Part A and Part B should be mixed individually before combining. Combine Part A and Part B, mixing thoroughly, using a mechanical mixer (Jiffy Mixer) at medium speeds. Mix for approximately 1 minute (DO NOT OVERMIX). Use care to scrape the sides of the container to ensure that no unmixed material remains. Use caution not to whip too much air into the material as this may result in pinhole blisters or shortened pot life. Do not mix more material that can applied in 10-15 minutes. Otherwise, material will start generating heat and accelerate the curing process; It will shorten the working time.

APPLICATION

Plexi*Crest* XP can be spread using a notched squeegee, brush or nap roller for the application. It should be noted that the thicker the application, the longer the curing process takes.

At 70°F (21°C) and 50% relative humidity, each coat needs to cure a minimum of 2-4 hours. Allow a

minimum of 4 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian or auto traffic onto the finished surface. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. Low temperature and/or humidity extend the cure time.

EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

TYPICAL PHYSICAL PROPERTIES

Solids Content		78% ± 5% mixed
Tensile Strength, psi	ASTM D412	5000-8000
Hardness Shore D	ASTM D2240	70-75
Flexibility 1/8th inch mandrel	ASTM D1737	Pass
Elongation	ASTM D412	30-50%
Viscosity, cp @ 75°	Mixed	350 EPS 400
Tear Strength	ASTM D624	350 psi
Taber Abrasion	ASTM D4060	22 mg
Gel Time	min @ 75°F	15-20
Initial Set Time	min @ 75°F	20-30
Mix Color	Clear	
Mix Ratio	1A:1B by volume	
Cure Time	1-2 hrs.	
VOC		30-40 g/L
Flammability		Self-extinguishing over concrete

This product contains isocyanate and curative material.

Emilie L. Enzmann

From:	Joanne Grant <JGrant@plexi-chemie.com>
Sent:	Wednesday, April 28, 2021 5:44 PM
To:	Emilie L. Enzmann
Cc:	Pasquale Sicilia; Elizabeth Self; Michelle White
Subject:	<EXTERNAL EMAIL> IRC Jail Kitchen Epoxy Flooring Quote
Attachments:	IRC Sheriff's Jail Kitchen Vero Beach Epoxy Flooring Project Quote .pdf; PlexiClad DeepFill Product Data Sheet.pdf; PLEXICRETE HD.pdf; PlexiCoat F Novolac.pdf; PLEXICREST XP polyaspartic ester.pdf

Hello Emilie,

Attached, please find our quote for the IRC Jail Kitchen Epoxy Floor Replacement project. Thank you for reaching out to us.

Sincerely,
Joanne

Joanne Grant
President

PLEXI-CHEMIE INC.

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