RESOLUTION NO. 2024-152

A RESOLUTION AUTHORIZING THE ISSUANCE OF AN AMENDATORY SUPPLEMENTAL CHANGE ORDER NO. 2 TO CONTRACT NO. 23-0078, ISSUED TO ARTHUR J. OGREN, INC., VINELAND, NJ, IN THE AMOUNT OF $141,449.19.

WHEREAS, the City Council of the City of Vineland, on April 25, 2023, adopted Resolution No. 2023-189, entitled "A RESOLUTION AWARDING A CONTRACT TO ARTHUR J. OGREN, INC., VINELAND, NJ, FOR CONSTRUCTION OF VINELAND FIRE HEADQUARTERS STATION 6."; and

WHEREAS, N.J.A.C. 5:30-11.1, et seq., sets forth the requirements for the processing of change orders; and

WHEREAS, the Director of the Department of Fire has requested that an amendment be made to contract awarded to Arthur J. Ogren, Inc., Vineland, NJ, for the Construction of Vineland Fire Headquarters Station 6, as authorized by Resolution No. 2023-189: said amendment provides for labor, material and equipment to complete epoxy floor system in garage A & B which includes a shot blast, primer, vinyl chips and epoxy high performance finish coat. A moisture mitigation system is included in this change order; and

WHEREAS, the City of Vineland desires to comply with said requirements of N.J.A.C. 5:30-11.1, et seq., and to that end herewith files with the governing body a report stating the facts involved and indicating that the proposed change order may be allowed under these regulations; and

WHEREAS, the Chief Financial Officer has certified the availability of funds for the amendatory supplemental change order for which authorization is requested in the amount of $141,449.19; now, therefore,

BE IT RESOLVED by the Council of the City of Vineland that said amendatory supplemental change order #2 to Contract No. 23-0078, issued to Arthur J. Ogren, Inc., Vineland, NJ, in the amount of $141,449.19, be and the same is hereby ratified and approved.

Adopted:

_____
President of Council

ATTEST:

_____
City Clerk

CITY OF VINELAND
WHERE IT'S ALWAYS GROWING SEASON

April 16, 2024

REPORT

TO: THE MAYOR AND COUNCIL

Amendatory Supplemental Change Order No. 2
Contract No. 23-0078
Construction of Vineland Fire Headquarters Station 6
Arthur J. Ogren, Inc., Vineland, NJ

We are requesting that an amendatory supplemental change order be issued to Contract No. 23-0078, issued to Arthur J. Ogren, Inc., Vineland, NJ, for the Construction of Vineland Fire Headquarters Station 6. This contract was authorized by Resolution No. 2023-189, adopted by City Council on April 25, 2023.

The change order requested, in the amount of $141,449.19, provides for labor, material and equipment to complete epoxy floor system in garage A & B which includes a shot blast, primer, vinyl chips and epoxy high performance finish coat. A moisture mitigation system is included in this change order.

This change order plus change order #1 ($150,000.00) represents an increase of approximately 2.18871425% over the original contract amount of $13,316,000.00.

The amendatory supplemental change order for which authorization is herein requested may be authorized in accordance with N.J.A.C. 5:30-11.1 et seq.

Respectfully submitted,

FOR RD

Robert E. Dickenson, Jr.
Business Administrator

RD/wr
Encl.

REQUEST FOR CHANGE ORDER

FOR:

VINELAND FIRE HEADQUARTERS - STATION 6 CONSTRUCTION

PROJECT NAME

TO: BUSINESS ADMINISTRATION

DEPARTMENT: FIRE FROM: RICHARD G FRANCHETTA

This is a request for change order # 2 to Contract # C23-0078 for:

Project Name Vineland Fire Headquarters - station 6 construction

Name/Address of
Contractor: OGREN CONSTRUCTION CO. 178 E. GARDEN ROAD - VINELAND NJ. 08360

The change order is necessary because: (use additional pages if necessary to explain your reason and you must attach *documentation to support the necessity of this change order.
*(Documentation from contractor, engineer, etc.)

Add-labor, material and equipment to complete epoxy floor system in Garage A & B which includes a shot blast, primer, vinyl chips and epoxy high performance finish coat. A moisture mitigation system is included in this proposal.

Original Contract Amount:	$ 13,316,000.00
Amount of this change order:	$ 141,449.19
Previous Change Orders:	$ 150,000.00
Total Revised Amount:	$ 13,607449.19

APPROVED BY: RICHARD G. FRANCHETTA
Print/type

Richard G. Franchetta, RMC, EJD Digitally signed by Richard G. Franchetta, RMC, EJD Date: 2024.04.11 10:19:44 -04'00'
Signature

NOTE:
CHANGE ORDERS CANNOT EXCEED 20% OF THE ORIGINAL CONTRACT AMOUNT

Please provide the account number that the change order will be charged to:

Account # C04-00-000-2156-78001

CC: Purchasing Division

AIA® Document G701® – 2017

Change Order

PROJECT: *(Name and address)*	CONTRACT INFORMATION:	CHANGE ORDER INFORMATION:
20.026 - Vineland Fire Headquarters Station 6	Contract For: General Construction	Change Order Number: 6
	Date: 4/26/2023	Date: March 29, 2024
OWNER: *(Name and address)*	**ARCHITECT:** *(Name and address)*	**CONTRACTOR:** *(Name and address)*
City of Vineland 640 E. Wood Street Vineland, NJ 08360	Manders Merighi Portadin Farrell 1138 East Chestnut Avenue #4 Vineland, NJ 08360	Ogren Construction Company 178 East Garden Road Vineland, NJ 08360

THE CONTRACT IS CHANGED AS FOLLOWS:
(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

Add - Provide labor, material and equipment to complete the epoxy floor system in Garage A and B. Included in this proposal is shot blast, primer, vinyl chips and epoxy high performance finish coat. Moisture mitigation system is included in proposal.
as described in Change Order Request #5 from Ogren Construction dated 2/29/2024
(attached)..... $141,449.19

Net total of Change Order #6	$141,449.19	
Contingency Allowance		$100,000.00
Change Order #1: $150,000 previously Add to Contingency Allowance		$150,000.00
Change Order #2: $38,666.02 previously deducted from Contingency Allowance		($38,666.02)
Change Order #3: $626.93 previoulsy deducted from Contingency Allowance		($626.93)
Change Order #4: $38,105.69 previously deducted from Contingency Allowance		($38,105.69)
Change Order #5: $65,778.72 deduct from Contingency Allowance		($65,778.52)
Balance of Contingency Allowance		$106,822.84

The original Contract Sum was	$	13,316,000.00
The net change by previously authorized Change Orders	$	150,000.00
The Contract Sum prior to this Change Order was	$	13,466,000.00
The Contract Sum will be increased by this Change Order in the amount of	$	141,449.19
The new Contract Sum including this Change Order will be	$	13,607,449.19

The Contract Time will be increased by Zero (0) days.
The new date of Substantial Completion will be

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

MMPF Architects, LLC	Ogren Construction Company, LLC	City of Vineland
ARCHITECT *(Firm name)*	CONTRACTOR *(Firm name)*	OWNER *(Firm name)*
SIGNATURE	SIGNATURE	SIGNATURE
David G. Manders, AIA, Partner	Arthur J. Ogren Jr. President	
PRINTED NAME AND TITLE	PRINTED NAME AND TITLE	PRINTED NAME AND TITLE
3/29/2024	4/9/2024	
DATE	DATE	DATE

OGREN CONSTRUCTION *Corporate Office* 178 East Garden Road Vineland, New Jersey 08360
tel: 856.692.4226 | fax: 856.696.5215 | email: build@ajogren.com | web: www.ogrenconstruction.com

February 29, 2024

Manders Merighi Portadin Farrell Architects, LLC.
1138 East Chestnut Avenue
Vineland, NJ 08360

Attention: Steven T. Graham

RE: Vineland Fire HQ Station No. 6

CHANGE ORDER REQUEST #5

Provide labor, material and equipment to complete the epoxy floor system in Garage A and B. Included in this proposal is shot blast, primer, vinyl chips and epoxy high performance finish coat. Moisture mitigation system is included in this proposal.

Delete concrete floor sealer – Material Only	-(900.00)
Ogren - Supervision, Coordination & Protection – 8 hours @ $125.46 P/H	$ 1,003.68
Hughes Electric - Electric service & 60 amp breaker	$ 1,084.00
Industrial Floor Corp. – Epoxy floor system – Garage A&B w/moisture mitigation	$131,535.00
Subtotal	$132,722.68
5% Overhead & Profit	$ 6,636.13
Subtotal	$139,358.81
1.5% Bond and Insurance	$ 2,090.38
Total	$141,449.19

Price Breakout Per Garage Space:

Garage A Cost	$86,147.42
Garage B Cost	$57,526.70

Very truly yours,

ARTHUR J. OGREN, INC.

Arthur J. Ogren, Jr.

Arthur J. Ogren, Jr., President

Industrial Floor Corporation

FAX/EMAIL TRANSMISSION PROPOSAL

Date: February 16, 2024

Project: Vineland Fire Headquarters
Vineland, NJ

Section: Epoxy Flooring

Product: AC TECH 2170 MOISTURE MITIGATION SYSTEMS
SANSEAM EPOXY VINYL FLAKE FLOORING SYSTEMS

Areas:

GARAGE A - BASE BID	-	8,565 Square Feet
GARAGE B - ADD ALTERNATE	-	7,100 Square Feet

Specs: See attached detailed installation specification.

Cost: $64,125.00 - Garage A - Add: $15,070.00 - Moisture Mitigation
$39,250.00 - Garage B - Add: $13,090.00 - Moisture Mitigation

- Garage B pricing is based on being done with Garage A
- Pricing does not include line striping, to be done by others

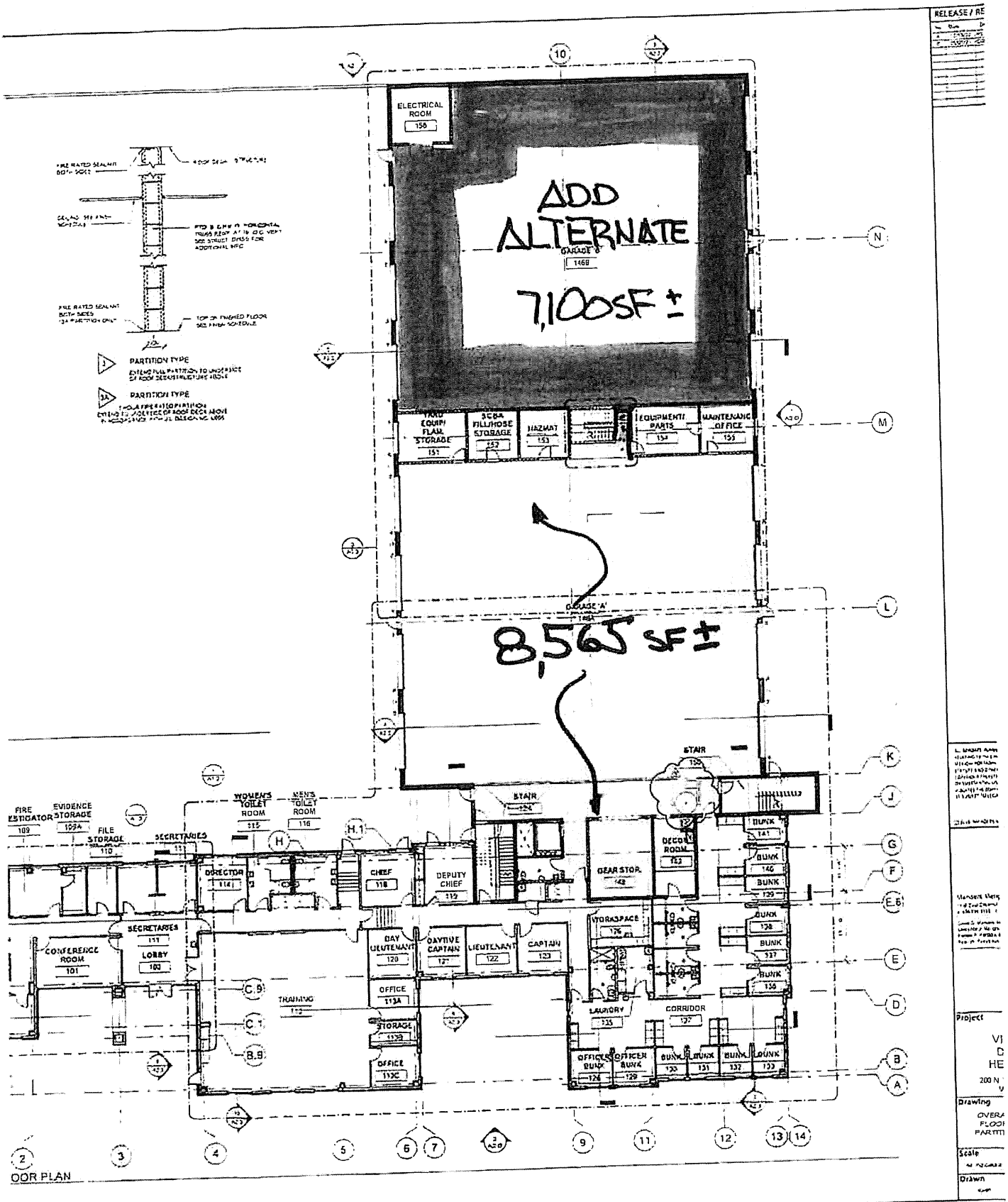
INDUSTRIAL FLOOR CORPORATION

Fred F. Coccagna - Vice- President

This proposal is being sent in short form. If you require our formal proposal, product data, and other items we will be pleased to submit these at your request. Thank you, IFC

Industrial Floor Corporation
SUITE 612 • THE PAVILION • JENKINTOWN, PENNSYLVANIA 19046-3778 U.S.A.
PROVIDING ABRASION AND CHEMICAL RESISTANT FLOORING SINCE 1932

PHONE: 215-886-1800
TOLL-FREE: 800-296-1801
FAX: 215-886-7469
WEB: www.floorepoxyindustrial.com
www.industrialfloorcorporation.com
EMAIL: sales@industrialfloorcorporation.com


ADD ALTERNATE
7,100SF ±
8,565 SF ±
ELECTRICAL ROOM 156
GARAGE 'B' 146B
GARAGE 'A' 146A
TOOL EQUIP FLAM STORAGE 151
SCBA FILL/HOSE STORAGE 152
HAZMAT 153
EQUIPMENT/ PARTS 154
MAINTENANCE OFFICE 155
PARTITION TYPE
PARTITION TYPE
FIRE ESTIGATOR 109
EVIDENCE STORAGE 109A
FILE STORAGE 110
SECRETARIES 111
WOMENS TOILET ROOM 115
MENS TOILET ROOM 116
DIRECTOR 114
CHIEF 118
DEPUTY CHIEF 119
STAIR 124
STAIR 135
GEAR STOR. 148
DECON ROOM 152
BUNK 141
BUNK 140
BUNK 139
BUNK 138
BUNK 137
BUNK 136
SECRETARIES 111
CONFERENCE ROOM 101
LOBBY 100
DAY LIEUTENANT 120
DAYTIME CAPTAIN 121
LIEUTENANT 122
CAPTAIN 123
OFFICE 113A
STORAGE 113B
OFFICE 113C
TRAINING 112
WORKSPACE 126
LAUNDRY 135
CORRIDOR 127
OFFICER BUNK 128
OFFICER BUNK 129
BUNK 133
BUNK 132
BUNK 131
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OOR PLAN

CHANGE PROPOSAL

CLIENT: *Ogren Construction*
178 E Garden Road
Vineland, NJ 08360

Change Proposal #: *7*
Date: *2/20/2024*

ATTN: Arthur J,. Ogren, Jr.

PROJECT: Vineland Fire Station

JOB#: 865

LOCATION: Vineland, NJ

SUBJECT: Added Breaker

DRAWING REFERENCE:

SPECIFICATION REFERENCE:

DESCRIPTION OF CHANGE:

Provide labor, material & equipment to install 60 amp breaker, stand and disconnect after use by epoxy floor installer.

CHANGE PROPOSAL AMOUNT $ $1,084

This proposal is valid for 15 days and subject to adjustment prior to acceptance.

CLIENT ACCEPTANCE:

DATE:

HUGHES ELECTRIC CO , LLC

Project: Vineland Fire Station

Date: 2/20/2024

Job #: 865

Change Proposal #: 7

(A) LABOR	***Hours***	***Rate***	***Sub-Total***
	Hours	Rate	Sub-Total
JOURNEYMAN	0.00	117.63	0.00
FOREMAN	6.00	130.97	785.82
NON-PRODUCTIVE	0.00		0.00
PROJECT MANAGER	0.00	117.63	0.00
ESTIMATOR	0.00	117.63	0.00
	TOTAL		**785.82**

(B) ENG. & MISC. LABOR (% OF A)		
ENGINEERING	0.00	$0
WARRANTY	0.00	$0
CLEAN UP	0.00	$0
JOB FACTOR	0.00	$0
		$0

(C) MATERIAL		1
PER ATTACHED	200.00	$200.00
MISC. MATERIAL	0.00	$0.00
STATE SALES TAX	0.00000	$0.00
	TOTAL	**$200.00**

(% OF LABOR COST)		
EST. PREP.	0.00	-
EXPEND. TOOLS	0.00	-
EQUIP. RENTAL	0.00	-
DRAWINGS	0.00	-
SAFETY	0.00	-
TEMP. LGT/PWR	0.00	-
TESTING	0.00	-
ALLOWANCE	0.00	-
FREIGHT	0.00	-
PERMITS & FEES	0.00	-
	TOTAL	-

(E) SUBCONTRACTOR	
TOTAL	$ -

(A) DIRECT LABOR		$786
(B) ENG. & MISC. LABOR		$0.00
LABOR COST		**$786**
(C) MATERIAL		$200
(D) JOB EXPENSES		$0
TOTAL PRIME		**$986**
(E) SUBCONTRACTOR		$ -
TOTAL SUB		**$0**
% OF OVERHEAD	10%	$99
TOTAL NET		**$1,084**
% OF PROFIT	5%	$0
SUB TOTAL		**$1,084**
% OF BOND COST	0.0000	$0
PROPOSAL AMOUNT		**$1,084**

ADDITIONAL MAN DAYS FOR THIS CHANGE 0

Industrial Floor Corporation

When Performance Counts...!

www.acfamerican.net

ALLIED CONSTRUCTION TECHNOLOGIES

TECHNICAL DATA SHEET

AC Tech® 2170

2-C-EP- ZERO VOC Resin

Description

AC Tech 2170® is a zero VOC, 2-component 100% solids, green tinted epoxy which contains no water or fillers or extenders. It is a true one coat moisture vapor reduction system which has been formulated to remain bonded to properly prepared concrete with high moisture emissions and a high alkaline load. It is acceptable for use in both new and old concrete slabs, on grade or elevated. This resin consists of a blend of special epoxy resins engineered specifically for concrete with elevated moisture and alkalinity levels that exceed the acceptable levels of resilient and epoxy flooring systems and coatings. The AC Tech 2170® can be applied to concrete with tested RH levels (ASTM F2170) of 100% or Calcium Chloride (ASTM F1869) with no upper limits. AC Tech 2170® is alkaline insensitive to pH levels of 14 sustained. All resilient flooring systems can be installed over the AC Tech 2170® including most resinous floor coatings. AC Tech 2170® is easy to apply after proper surface preparation, mix, pour spread with a squeegee and backroll and cures in 12 hours; and in 24 hours is ready for self-leveling underlayment or flooring adhesives to be applied directly to the cured system. Contains no Benzyl alcohol.

Characteristics

AC Tech 2170® This zero VOC product can be used in populated public application areas or job sites where other trades are present and will not affect indoor air quality. AC Tech 2170® ... concrete moisture remediation coating for all types of flooring systems such as; (but not limited to) office buildings, hotels, hospitals, schools, aircraft hangars, sports complexes, warehouses and re-purposed structures. AC Tech can be used on any indoor or outdoor concrete structure requiring moisture vapor reduction and alkalinity control.

The information contained in this Technical Data Sheet is of a general nature and is provided in good faith and we accept no liability for errors or omissions. Because use and application of this product are out of our control and is dependent on substrate load (possible contaminates), methods of preparation and application parameters, on the particularities of the individual case, our advice, verbal, written or based on tests, does not exempt the applicator from testing the suitability of the products for the intended use.

Features

- *Excellent moisture reduction*
- *Withstands 100% RH; ASTM F 1869 no upper limit*
- *Zero VOC emissions*
- *Resists alkalinity to pH of 14*
- *Very high chemical resistance*
- *Very high mechanical resistance*
- *No sand broadcast*
- *12 hour cure*

Technical Data

Mixing ratio A : B	A: 2.35; B: 1
Density (75°F)	approx. 1.10 g/cm³
Volume solids	100%
Viscosity (75°F)	700 cps
Compressive strength	14,500 psi
Tensile strength	4,300 psi
Water absorption	< 1.5%

ASTM E96 Test Results

Up to 98% Reduction in Moisture Vapor Emissions

Perm Rate	less than .08

Details for Application

Pot life (50°F / 75°F / 85°F)	50 minutes / 30 minutes / 20 minutes
Substrate temperature	Substrate temperature 50-90°F
Storage temperature	55°F - 80°F
Application humidity Dew point	+5°F steady and/or rising
Cure time / foot traffic: @ 75°F	12 hours
Cure time for flooring installation: @ 75°F	24 hours

All above values are approximate and may be used as a guideline for specifications. Cure times are approximate and dependent upon ambient temperature and humidity conditions of the jobsite.

Packaging

2.4 Gallon Units
6.0 Gallon Units

Color

Translucent Green (dye)

Storage

12 months, in original unopened containers under dry conditions and a temperature of 50 - 90°F.

Coverage Rates

Coverage rate may vary based on factors such as the concrete surface condition, surface profile achieved (CSP value-Concrete Surface Profile; ICRI 03732) after floor preparation is complete.

ASTM F 2170 (2420) Relative Humidity		ASTM F 1869, Calcium Chloride	
90-100% RH	125 sq.ft/gal	15-25 lbs	100 sq.ft/gal
85-90% RH	150 sq.ft/gal	10-15 lbs	125 sq.ft/gal
75-85% RH	175 sq.ft/gal	3-10 lbs	150 sq.ft/gal

Industrial Floor Corporation

AC Tech® 2170

2-C-EP- ZERO VOC Resin

1. Surface Preparation

Concrete surface where the AC Tech® 2170 will be applied must be sound, clean, absorptive and in compliance with ACI 201 Committee, ACI 318 & 302. Concrete surfaces are to be prepared in accordance with ICRI-03732 or SSPC-SP 13/NACE NO.6 and ASTM F710.

When concrete is new provide mix design to AC Tech for review. On existing concrete, AC Tech recommends that sample cores be taken from the concrete to determine if any elevated levels of organic compounds and fugitive inorganic salts are present. Please consult the AC Tech technical staff on questions concerning this type of testing.

All concrete surfaces to be coated with AC Tech® 2170 must be free of all adhesives, coatings, curing compounds, concrete sealers, efflorescence, grease, oil, patching materials, previous flooring materials, dust and any other material that may act as a bond breaker or sponsor osmosis.

Shot blast or mechanically prepare the concrete surface on new concrete to an ICRI CSP-3, existing concrete to a CSP-4. Or as directed upon review of test core results by AC Tech technical staff. Grinding is generally not acceptable but may be considered (only in areas where shop blaster cannot be used); consult AC Tech technical staff for guidance. Hand tool perimeter and corners to the same CSP value as floor area.

2. Application Instructions

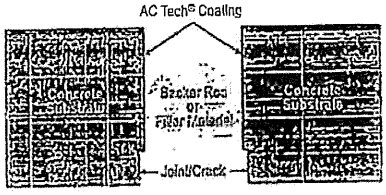
Mix the AC Tech 2170® by opening both cans, premix the A ~ 30 seconds, then pour the B into the A and mix for 2 – 3 minutes using a 400 rpm drill and a Jiffy mixer type paddle. Immediately pour the mixed epoxy onto the prepared concrete surface. The AC Tech® 2170 is applied in one coat and spread using a squeegee; then back-roll using an appropriate epoxy type roller cover. Temperature & environmentally stable concrete slabs may have the AC Tech® 2170 applied anytime. When applying product with fluctuating temperatures or outdoor applications, temperature must be steady and/or Falling at application." To avoid a dew point problem, when temps are within 5° (F) of dew point, make sure that temps are steady and *RISING*. Material application window is ~ 30 days after application. PMMA and MMA coatings must be applied within 48 hours. If the applied (cured) AC Tech® 2170 requires cleaning, clean surface to NACE: SSPC-SP1.

3. Self Levelling Underlayments

Self-levelling underlayments are used to provide a smooth and level surface for subsequent flooring systems application. Flooring system adhesive may be applied directly to the cured AC Tech® 2170, consult the flooring manufacturers specifications regarding application and type of adhesives for use on a "non-porous" substrate. All feather-finish, self-levelling and any other cementitous patching materials must be installed over the cured AC Tech® 2170 vapor reduction systems, (unless otherwise specified); *never under it*. When any subsequent cementitous self-levelling material is to be installed, the cured surface of the AC Tech® 2170 *must be primed* with the AC Tech® 2170 SLP (Self-Levelling Primer). Other manufacturer's non-porous primers may be used, please consult the AC Tech technical staff in these cases.

4. Cracks and Joints

All cementitous toppings such as self-levelling underlayment's are to be installed over the AC Tech® 2170. Exceptions are when installing a chemical block coating between the concrete substrate and the AC Tech® 2170, (consult the AC Tech technical staff for details on this procedure-installation). Concrete cracks, control cuts and expansion joints: *In temperature stable environments:* all static (non-moving) surface cracks can be sealed (flooded) with the AC Tech® 2170. Static cracks may be saw-cut if necessary and filled by trowelling a mixture of AC Tech® 2170 and Cab-o-Sil® or Aerosil®. *On concrete substrates that are exposed to temperature fluctuations:* fill expansion joints and control cuts will require semi-rigid joint filling systems per all applicable industry standards. Make sure to properly prepare and treat/coat all exposed crack walls with the AC Tech® 2170 product prior to installing any backer rod or filler, making sure that the coating goes down beyond any backer rod or filler used in these cracks, (see illustration below).



If slab levelling is required before application of the AC Tech® 2170 contact the AC Tech technical department for assistance. Gypsum based compounds cannot be used unless certified to be water/moisture stable.

5. Adhesives

Any and all flooring adhesives applied directly to the cured AC Tech® 2170, must be formulated to be applied to a "non-porous" substrate. Contact the flooring and/or adhesive manufacturer for proper adhesive to use with their flooring. Follow all the manufacturer's specifications / instructions when installing the adhesive. It is recommended to test a small area of adhesive for proper performance with the cured AC Tech® 2170 and the selected flooring system.

This product is not UV stable and will discolor when exposed to UV.

6. Chemical Resistance

Contact AC Tech technical staff for specific chemical resistance of the AC Tech® 2170 product prior to application.

7. Packaging

2.4 Gallon unit
- 1.7 Gallon component A
- 0.7 Gallon component B

6 Gallon unit
- 4.2 Gallon component A
- 1.8 Gallon component B

8. Health and Safety

Always review product MSDS before handling product and obtain appropriate PPE and handling equipment. Do not expose skin, eyes or ingest mixed or unmixed AC Tech® 2170. Skin contact: remove with soap and water. Eye contact: rinse eye immediately with clean water and seek medical attention. When dealing with ingestion note product CAS numbers and treat accordingly. Store, transport and dispose of in accordance with procedures in product MSDS.

9. First Aid

Eye contact: Flush immediately with clean water and seek medical attention.

Skin contact: Wash affected areas with soap and fresh water, if a negative skin reaction is recurring; keep individual away and do not come into contact with material.

10. Warranties

AC Tech® 2170 provides a ten year labor and material warranty when the product is applied by an AC Tech approved applicator. Any product applied by unapproved applicators is not covered by any warranty whatsoever. See limited warranty below.

11. Emergency Response

INFOTRAC: 800-535-5053
Contract#: 104212
Call this number if there is a spill or a damaged container.

FOR COMMERCIAL USE ONLY: KEEP OUT OF THE REACH OF CHILDREN OR ANY PERSONNEL NOT TRAINED IN ITS USAGE.
READ MSDS AND ALL SAFETY PRECAUTIONS PRIOR TO USE.

1-215-886-1800
1-800-296-1801
Fax: 215-886-7469
www.industrialfloorcorporation.com
www.floorepoxyindustrial.com
E-Mail Address: INFLOOR@aol.com
sales@industrialfloorcorporation.com

SANSEAM® Epoxy–Vinyl Chip Floors

DESCRIPTION

SANSEAM® Epoxy-Vinyl Chip Flooring has been specifically designed for use in Industrial, Commercial, and Institutional applications where a decorative floor surface is required, while at the same time, containing substantial abrasion and chemical resistant qualities.

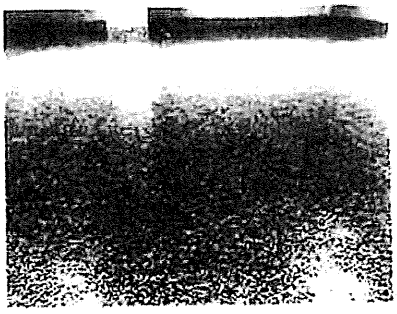
It is composed of a two component, 100% Solids Epoxy containing no solvents, formulated with decorative vinyl chip flakes to form a workable matrix that is applied over a concrete or wood floor in thicknesses of 1/16" to 3/16" and finished to a smooth or slipproof surface.

USES

SANSEAM® can be used wherever the existing floor is in a worn and deteriorated condition or where a decorative floor surface is required in offices, cafeterias, washrooms, laboratories, and other plant or institutional locations.

SURFACE/BASE/APPLICATION

The surface sealing may be either epoxy or polyurethane, and the finished texture may be either smooth, semi-smooth, or slipproof.



ADVANTAGES/FEATURES

The outstanding feature of SANSEAM® is that it is possible to achieve a decorative floor surface that is highly resistant to heavy-abrasive activity and chemical spillage in the normal plant or institutional situation.

SANSEAM® Floors are completely seamless, sanitary, easy-to-clean and maintain a permanent gloss. Installation requirements eliminate dust, noise and costly "down-time". Large areas consisting of several thousand square feet can be completed, cured and returned to use during regular working hours or on weekends, nights and other off-hour periods.

Many major installations can be performed during weekends with complete installation and cure accomplished within this period. The floor area would be ready for full use on Monday morning.

CHEMICAL RESISTANCE DATA

- ALKALIES – ammonia, soda ash, caustic potash, lime, etc.
- MINERAL ACIDS – phosphoric, hydrochloric, sulphuric
- SALT – neutral, acid, alkaline
- ORGANIC SOLVENTS – turpentine, thinners, petroleum
- ORGANIC COMPOUNDS – sugar, mineral oils, soaps, detergents, greases, milk, fruit, cheese, beverages, animal and vegetable fats
- WATER – distilled, tap, deionized

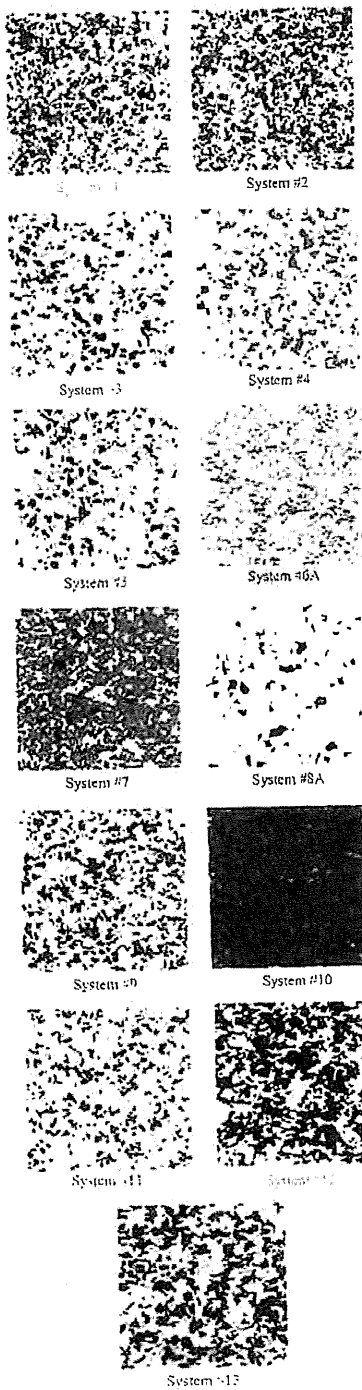
PHYSICAL DATA

- Resin Only (without aggregate)
- Tensile (ultimate) ..... 9,000 psi
- Elongation at break 7%
- Flexural Strength ..... 8,900 psi
- Compressive Strength ..... 18,600 psi
- Flexural Deformation Temperature ..... 220° F
- Hardness Barcol 85-90
- Waterproof Absorption 2 hour boil 0.09%
- Compressive Strength with Aggregate (approximate) ..... 18,800 psi

COLORS

SANSEAM® Epoxy Vinyl Chip Floors are available in colors consisting of red, green, blue, black, white, buff, tan, gray, and brown.

The colors can be custom designed, mixed, proportioned and blended to provide hundreds of color pattern variations achieving a "salt and pepper" effect.



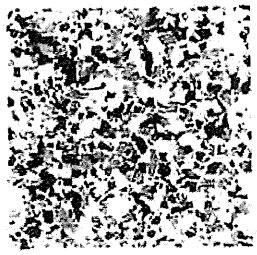
ACTUAL COLORS, COMBINATIONS, PROPORTIONS OR OTHER ACTUAL FINISHED FLOORING MAY VARY FROM THE PATTERNS PRINTED ON THIS CHART.

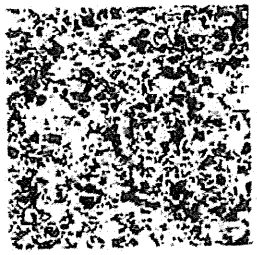
DISCLAIMER

All data are based on information available to us and are believed to be correct. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained therefrom.

Industrial Floor Corporation

SANSEAM EPOXY-VINYL CHIP FLOORING SYSTEMS


System #1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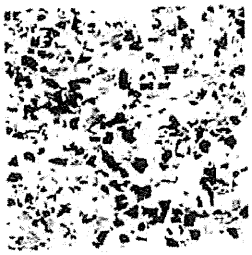
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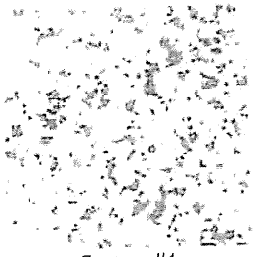
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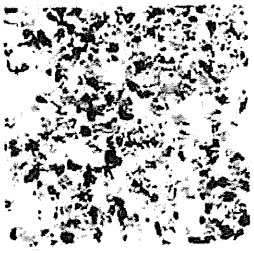
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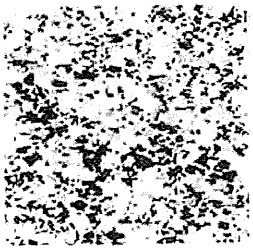
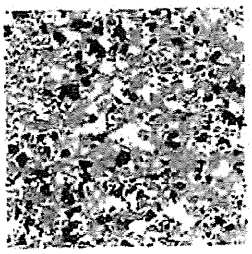
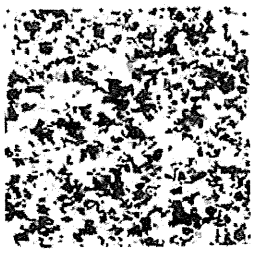

System #6A


System #7


System #8A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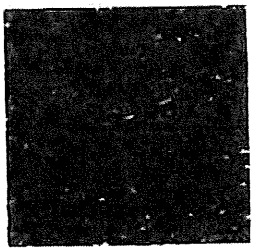
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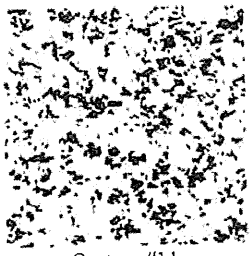
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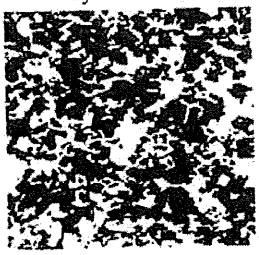
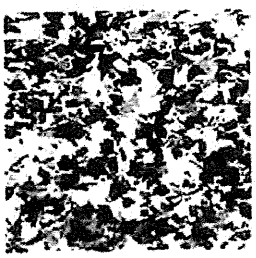

System #12


System #13

You can create your own custom blends from a multitude of colors and thousands of color combinations.

The colors and patterns shown on this chart may vary from the actual upon installation due to thickness, batch manufacture, and other factors.

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PROVIDING ABRASION AND CHEMICAL RESISTANT FLOORING SINCE 1932

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Industrial Floor Corporation

SANSEAM EPOXY VINYL CHIP FLOORING SYSTEMS - Technical Data

Description

SANSEAM Epoxy Vinyl Chip Flooring is a decorative, 3 component, 100% Solids Epoxy, containg no solvents, formulated with color Vinyl Chips to form a workable matrix that is applied over a concrete or wood floor in thicknesses of 1/16", 1/8", or 3/16" finished to a smooth or slip-proof (non-skid) surface.

Uses

SANSEAM can be used where the floor is in a worn and deteriorated condition resulting from heavy abrasive traffic and chemical attack, and where a new decorative appearance is required.

Surfaces

The surface of a new **SANSEAM** Floor can be finished to meet most requirements including a very smooth surface, one which is completely slip-proof (non-skid), or any surface inbetween.

Base

The base to which a **SANSEAM EPOXY VINYL CHIP FLOOR** is to be applied must be firm and dry. All concrete areas containing holes, ruts, and depressions may be grouted using **SANSEAM EPOXY GROUT**. Wood floors that are loose and splintery must be repaired, and when required, covered with plywood.

Application

Concrete floors must be cleaned. All loose and deteriorated surface materials must be removed and the entire area prepared using scarification, shot-blasting (dust-free), grinding, sanding, or by other means. Acid-Etching is not recommended. **SANSEAM EPOXY PRIMER** is then applied.

SANSEAM EPOXY VINYL CHIP FLOORING is then mixed and applied to the floor in the broadcast method of installation to the desired finish. After the **SANSEAM** has set sufficiently an application of **SANSEAM EPOXY FINISH COATINGS** is applied to the floor by roller, squeegee, or trowel. A second finish coating of **SANSEAM EPOXY** may be applied to achieve a higher gloss, to accommodate larger chip aggregate, or for other technical purposes.

Color

SANSEAM EPOXY VINYL CHIP FLOORING has a muli-color and irregular chip appearance available in 12 basic colors that can be combined, formulated, and proportioned to create thousands of different color patterns. Any color pattern required can be achieved.

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Advantages/Features

When a new decorative heavy-duty, abrasion and chemical resistant surface is required, **SANSEAM EPOXY VINYL CHIP FLOORING** has no equal. **SANSEAM FLOORS** are seamless with integral matching cove bases. **SANSEAM FLOORS** offer a multitude of colors that allow the new flooring to match any interior design.

A completely new floor surface, consisting of thousands of square feet, can be installed and cured within a matter of a few days. Many times these floors can be installed over a weekend with your use of the floor on Monday Morning. There is no need for costly and time consuming base concrete removal, adjustment, or replacement as with several other types of new flooring systems.

The cost of a **SANSEAM FLOOR** is considerably less than many other types of flooring, and the qualities offered by **SANSEAM FLOORING** substantially exceed those offered by ordinary concrete or other specialty floor toppings.

SANSEAM EPOXY VINYL CHIP FLOORING will withstand fork-lift activity, heavy abrasion, chemical spillage and attack. When repairs are required they are made easily and inexpensively.

Some of the features of **SANSEAM EPOXY VINYL CHIP FLOORING** include the following:

Decorative surface
Sanitary
Dust-Proof
Vermin and Mildew resistant
Lightweight
Waterproof
Moisture Friendly
Abrasion/Chemical Resistant
Shock Resistant
VOC Compliant
Non-Shrinking
Seamless Overlay
Feather edges easily without breakdown at transition locations.
No odor during application or after installation.
Cost Effective
Extensive Life Expectancy
Resists solvents, oils, acids, alkalis, salts, and many others.

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SANSEAM EPOXY VINYL CHIP FLOORING SYSTEMS

Technical Data - **100% Solids Epoxy**

ASTM C-579	Compressive Strength	18,800 psi with aggregate
ASTM C-307	Tensile Strength	9,000 psi with aggregate
ASTM D-790	Flexural Strength	8,900 psi with aggregate
ASTM C-413	Water Absorption	0.09% max
ASTM D-2240	Surface Hardness	D85-90
ASTM D-3134	Impact Strength	No detachment
ASTM D-4060	Abrasion Resistance	0.2 Gm max. weight loss
ASTM D-4541	Adhesion	400 PSI – Failure in concrete sub-base
ASTM G-21	Antimicrobial	Yes – when required
ASTM E-831	Thermal coefficient of linear expansion in oC Max 3.5 x 10-6 In/in oC	
ASTM D-635	Flame Spread/Surface burning characteristics – Self Extinguishing	
Heat Resistance Limitation - 140 degreesF/60 degrees C for continuous exposure		
Heat Resistance Limitation - 200 degreesF/93 degrees C for intermittent spills		
RS 5-5	Toxicity Test	Non-Toxic
Thermal Shock 5 cycles		No cracking, crazing, or warping
Cure Rate (77 degreesF/25 degrees C)		7-8 hours for normal operations

Chemical Resistance Data for SANSEAM
No effect from the following depending upon percentages, temperatures, use frequency, and type of Epoxy formulation (Standard, NOVOLAC, Etc.)

Acetic Acid
Chloric Acid
Citric Acid
Hydrochloric Acid
Nitric Acid
Phosphoric Acid
Sulfuric Acid Aluminum Sulfate

Motor/Hydraulic Oils/Fluids

Alkalies:
Trisodium Phosphate, Sodium Carbonate, Ammonium, Hydroxide, Soda Ash, Caustic Potash, Lime.
Water: Distilled, tap, deionized.
Organic Compounds:
Sugar, mineral oils, soaps, animal and vegetable fats, milk, fruit, cheese, beverages.

NOTE: Certain chemicals and high percentages/temperatures may require NOVOLAC Epoxies.

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LEED Environmentally Friendly Flooring for Green Project Goals

LEED "Leadership Energy Environmental Design" is to determine and achieve green project goals regarding a building's impact on the environment. LEED was developed by USGBC United States Green Building Council.

INDUSTRIAL FLOOR CORPORATION is aware and committed to produce flooring systems that are environmentally friendly using and installing low emitting materials creating almost no waste. These products include, however are not limited to, POXEPLATE Epoxy Floor Resurfacing Systems, POXEPLATE Epoxy Floor Coating Systems, POXEPLATE NOVOLAC High Chemical Resistant Epoxy Floor Resurfacing Systems, POXEPLATE NOVOLAC High Chemical Resistant Epoxy Coating Systems, SANSEAM Epoxy-Quartz Flooring Systems, SANSEAM Epoxy-Quartz NOVOLAC High Chemical Resistant Flooring Systems, INDUSTRIAL IF322 (VOC Compliant) Urethane Floor Resurfacing and Coating Systems, and SANSEAM Epoxy-Vinyl Chip (Flake) Flooring Systems.

These systems have a VOC rating of zero and nearly zero.

These products are used to renovate existing facilities due to their ability to convert prior unusable or impractical flooring to new abrasion and chemical resistant usable floor surfaces which will reduce the need for the creation of new facilities, which could adversely effect the environment when new construction projects are undertaken.

POXEPLATE and SANSEAM Flooring Systems add many years to the life use of a floor surface, and will outlast many other types of flooring, for existing and new facilities, thereby eliminating the need to redo flooring on a more regular basis since wear and erosion of these floors is almost non-existent.

There is no waste when installing POXEPLATE and SANSEAM Floors since there is no cutting, trimming, or shaping of excess flooring materials that would occur when using a sheet goods or other type of product, thereby eliminating the need to dispose of excess unused materials.

POXEPLATE and SANSEAM Flooring is packaged in 55 gallon drums, and 50/100 lb bags which are recyclable. When a new POXEPLATE or SANSEAM Floor has been installed the used drums are returned to IFC warehouses for recycling. The empty bags are recycled as well.

If additional information is required please contact IFC at any time.

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PARTIAL CLIENT LIST – Industrial, Chemical, Food, Institutional, Government, and Military

Allied Signal Aerospace Company
American Galvanizing Company
Amstar (Domino Sugar)
ArmaKleen Company
Brookfield Properties
Campbell Soup Company
Center for Disease Control (NIH)
Coca-Cola Bottling Co. USA
DiBruno Brothers Foods
Domino Pizza Corporate
Dow Chemical Corporation
Dunkin Donuts Corporate
E.I. DuPont DeNemours Et Cie., DE
Federal Process Corporation
Federal Reserve Banks, NY, PA
Firestone Tire and Rubber Co.
Food Sciences Corporation
Ford Motor Company
Foremost Manufacturing Co., Inc.
General Chemical Corporation
General Electric Company
General Motors Corporation
General Services Administration, US
Giorgio Foods/Mushroom Company
Glaxo Smith Kline Pharmaceuticals
Globus Medical
Hovione, Inc.
Incyte Corporation
IRS Headquarters, Kearneysville
Jacquins Liquors Cie., Inc.
Johnson Matthey Corporation
Kellogg's/Eggos Foods
Keystone Industries, Inc.
Kimberly-Clark Corporation
K-Mart/Sears Holdings Corporation
Kintock Corporation
Lanxess/Chemtura Corporation
Mack Trucks, Inc.
Marriott Hotels Corporation
McDonalds Foods Corporate
Merck and Company
NASA Greenbelt, Washington DC
NIBCO Headquarters
Nothing Bundt Cakes
Philadelphia Macaroni Company
Reichhold Chemicals, Inc.
Rhone-Poulenc Chemicals
Richter Precision, Inc.
Rite-Aid Warehouses Corporate
Rockefeller Center, NY Corporation
Shady Maple Farms
SKF Inudstries, Inc.
Silvex, Inc.
Smurfit Stone Container Corporation
Sodexo
Triple Cities Metal Finishing
Valspar Corporation
Wal-Mart Warehouse Corporation
Whole Foods Corporation
World Flavors Corporation

US Dept of Transportation/Airports
Dulles 11 Mile Metrorail Corridor

US Dept of Agriculture, DC, PA

US Department of Justice:
Lewisburg PA, Marienville PA, Balt. MD
Washington DC, Philadelphia, PA
Bergen County NJ, Nassau County, NY
Monmouth Cty NJ, Burlington Cty NJ
Bellefonte PA, Graterford PA, El Reno OK

US Postal Service: 44 Locations
PA, NY, DE, NJ, CT, VA, MD, DC.

Waste Treatment/Power Plants:

Bayonne, NJ, Bridgeport, NJ, Linden, NJ
Delaware City, DE, Front Royal, VA
Mahopac, NY, Somerset-Raritan, NJ
Woodstock, NY, Media, PA, Wash. DC
Richmond, VA, East Rutherford, NJ
Leesburg, VA, Port St. Lucie, FLA.

Schools – More Than 300:

Florida, Pennsylvania, New Jersey
New York, Connecticut, Maine, Virginia
Massachusetts, Delaware, Maryland
West Virginia, Ohio, North Carolina
South Carolina, Washington, DC
Rhode Island.

Military:
The Pentagon, Washington, DC
Eisenhower Exec War Bldg., DC
Lafayette Fed Military Bldg., DC
US Air Command, Chambersburg
US Air Force, Andrews AFB, MD
US Air Force, Kelly AFB, SA, Texas
US Air Force, Loring AFB, Maine
US Air Force, McGuire AFB, NJ
US Army Proving Ground, MD
US Army/Air Force, Middle River
US Army Defense Support, Phila.
US Army Electronics Com. PA
US Army, Fort Belvoir, VA
US Army, Fort Dix, Jt. Base, NJ
US Army, Fort Gordon, Georgia
US Army, Fiort meade, MD
US Army, New Cumberland, PA
US Army, Tobyhanna Depot, PA
US Army Walter Reed Hospit , DC
US Coast Guard Yards, Baltimore
US Coast Guard, Philadelphia, PA
US Coast Guard, Sewickley, PA
US Marine Corps, Albany, Georgia
US Marine Corps, Central Calf.
US Marine Corps, Quantico, VA
US Medical Research, Bethesda
US Naval Air Station, Patuxent
US Naval Station, Lakehurst, NJ
US Naval Supply Depot, Phila.
US Naval Station, Newport, RI
US Naval Support Depot, Phila.
US Naval Training Center, Orlando
US Naval Undersea, Bremerton
US Naval Academy Annapolis MD
US Navy Anacosta-Bolling Jt Base
US Army Guantanamo, Cuba
US Naval Research, Washington

US Naval Shipyards:
Washington, DC, Philadelphia, PA
New York, New York, Portsmouth
Norfolk, VA

Veterans Adm. Hospitals:
Ashville, NC, Atlanta, GA, Butler,
PA, Coatesville, PA, Lyons, NJ,
Montrose, CT, Montrose NY,
Newark, NJ, Philadelphia, PA,
Pittsburgh, PA, New York, NY.

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