

SEAMLESS FLOORING SYSTEMS

WWW.SEAMLESSFLOORING.COM

January 29, 2004

DEC Seafood and Food Safety Lab

Enclosed are submittals for the fiberglass reinforced wall coating specified in Section 9960. All materials are manufactured by Dur-A-Flex. The coatings proposed for the walls and ceilings are as follows:

WALLS – DUR-A-WALL FGR (FIBERGLASS REINFORCED)

The Dur-A-Wall system includes a primer coat, Dur-A-Gard epoxy bond coat and topcoats and a finish; coat of Polythane #3 Urethane. Fiberglass mat is embedded in the second bond coat. Minimum finished thickness will be 21 mils.

CEILINGS – DUR-A-GARD EPOXY WITH POLYTHANE #3 TOPCOAT

Ceilings will have the same coating as described for the walls minus the fiberglass matting. Minimum finished thickness will be 10 mils.

The Dur-A-Wall FGR system will be installed in rooms as designated on the plans and in the finish schedule. This system is compatible with epoxy coatings and including those specified for the floors.

I have included a letter from the manufacturer indicating the low VOC content of these coatings.

Yours truly,



F.T.Wade
President

Tint finish coat to match P1: Sherwin Williams
SW 0050 "Classic Light Buff" as close as
possible.
- Heather Sealy, Livingston Slone, Inc.

January 26, 2004

Fred Wade
Seamless Flooring Systems
P.O. Box 101801
Anchorage, AK 99510

Re: Dec Seafood and Safety Lab

Dear Fred,

This letter is in reference to a request that Dur-A-Flex certify the VOC content and limitations in regards to the DEC Seafood and Safety Lab jobsite. Jeff Donnell asked me to send along any information you may need to assist you with construction specifications. A list of low or no VOC products for Dur-A-Wall FGR is as follows:

Dur-A-Gard No Sag VOC content is 39.4 grams / Liter (used as a primer and pigmented body coat)

Polythane #3 Pigmented VOC content is 291 grams / Liter (used as a single topcoat only)

If I can be of any other assistance, please call me at Dur-A-Flex, 1-800-253-3539 and I will be happy to help.

Sincerely,



Dawn M. Rabito
R&D Chemist

DUR-A-WALL FGR(Fiberglass Reinforced)

DESCRIPTION

DUR-A-WALL FGR Epoxy Wall System is a colored, two component, low odor, 100% thermosetting epoxy formulation of DUR-A-GARD NO-SAG with fiberglass reinforcement designed especially for wall applications. DUR-A-WALL FGR is ideally suited for application on concrete, wood, drywall, or block. This coating is extremely durable, sanitary and easy to clean. The high gloss finish is stain resistant and virtually unaffected by oil, grease, strong detergents, and salt.

BENEFITS

- Stain Resistant
- Durable
- Easy to Clean
- Sanitary

COLORS

DUR-A-WALL FGR is available in 17 standard colors. Refer to the Standard Color Chart for actual colors. Custom colors are also available. See limitations for certain colors.

TYPICAL USES

- Laboratories
- Hospitals
- Walk-In Coolers
- Laundries
- Pharmaceutical Plants
- Kennels
- Food Processing Plants
- Bottling Plants
- Commercial Kitchens
- Garages
- Clean Rooms
- Warehouses

PACKAGING

DUR-A-WALL FGR Epoxy Wall System is packaged in 1 gallon cans, 5 gallon pails and 50 gallon drums. Shelf life is one year in unopened containers.

CHEMICAL RESISTANCE

This product is resistant to most common chemicals. Please refer to the master "Chemical Resistance Chart" for actual resistance to specific chemicals/reagents.

APPLICATION METHOD /SPREAD RATES

DUR-A-GARD NO-SAG is used throughout the DUR-A-WALL FGR system for base, grout and seal coats. Typically, DUR-A-GARD NO-SAG is applied with a roller at approximately 200 Sq Ft per gallon to yield an 8 mils wet film thickness, evenly with no runs. Coverage will vary depending on porosity and texture of surface.

- A. Base Coat – Premix hardener and resin for 2 – 3 minutes with a slow speed Jiffler type mixer. Add 1 part hardener to 2 parts resin by volume. Mix with slow speed Jiffler type mixer for 2 – 3 minutes. Apply at a spread rate of 200 Sq Ft per gallon.
- B. Fiberglass Reinforcement – Hang fiberglass cloth directly into wet epoxy resin, similar to hanging wallpaper so the seams are uniform and even. Overlap each strip and trim using a "double cut" method. Remove the trimmed material behind the front strip. After placing on the wall, use a broad knife to remove air pockets, wrinkles or irregularities. Allow to cure.
- C. Grout Coat - Premix hardener and resin for 2 – 3 minutes with a slow speed Jiffler type mixer. Add 1 part hardener to 2 parts resin by volume. Mix with slow speed Jiffler type mixer for 2 – 3 minutes. Apply with short nap roller at a rate of 200 Sq Ft per gallon. Allow to cure for a minimum of 10 – 12 hours before sanding of bumps and other imperfections.
- D. Seal Coat – Repeat instructions for grout coat.
- E. Chemical Resistant Topcoat – POLY-THANE #3 is a two component, pigmented, aliphatic urethane performance topcoat. It is designed to provide excellent protection against very aggressive solvents, acids and alcohol's. POLY-THANE #3 also provides a high degree of abrasion resistance. It is specifically recommended to be used as a finish coat in any area where UV stability is critical.

LIMITATIONS

This product is best suited for application in temperatures between 55°F and 95°F. Certain colors appear white when scratched. Light Blue, and Smoke Blue should be topcoated with POLYTHANE #3 to reduce the “White” appearance of scratches.

CLEANING

This product is considered a low maintenance coating solution, however, certain textures and service environments do require certain procedures. Please refer to the master “**Cleaning Guide**”.

DRAWINGS AND DETAILS

Standard CAD drawings and details are available for coves, drains, breaches, transitions, etc. Please refer to the master “**Drawings and Details**” guide for actual drawings.

MOISTURE CONCERNS

Moisture vapor transmission in the slab should be measured prior to application of polymeric systems to ensure a long lasting, durable installation. Please refer to the master “**Moisture Assessment Guide**” for more information.

GUIDE SPECIFICATIONS

This product is part of the DUR-A-FLEX family of polymer systems. Please refer to the master “**Specifier’s Guide**” for complete three part guide specs in multiple formats.

CAUTION

Slight batch-to-batch color variations may occur. When ordering to match a previous color, inquire if the same batch number or quality control number is still available. **Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Use only as directed. KEEP OUT OF REACH OF CHILDREN.**

Before using any DUR-A-FLEX, Inc. product, be sure the Material Safety Data Sheet is read and understood.

POLY-THANE #3

DESCRIPTION

POLY-THANE #3 is a pigmented, two component, aliphatic polyester-urethane performance topcoat. It is designed to provide excellent protection against very aggressive solvents, acids, and alcohols. It also provides a high degree of abrasion resistance. It is specifically recommended to be used as the finish coat(s) in any area where UV stability is critical. POLY-THANE #3 is extremely resistant to ambering and chalking due to sun or any high intensity UV light.

BENEFITS

- Non Ambering
- Good Chemical & Stain Resistance
- Excellent Abrasion Resistance
- Easy Maintenance
- Easy To Use Mix Ratio

COLORS

Refer to the Standard Color Selector Chart for readily available colors. Custom colors are also available.

TYPICAL USES

- Performance Topcoat for DUR-A-GARD
- Performance Topcoat for SHOP FLOOR System
- Performance Topcoat for DUR-A-CRETE System
- Re-Coat for dull epoxy/urethane coatings
- Hangar Floor Coating
- Maintenance Bays and Machine Shops
- Firehouse Floors
- Exterior Chemical Storage Areas

SPECIAL PURPOSES FORMULATIONS

POLY-THANE #3 is also available in satin and flat finishes.

SURFACE PREPARATION

This product requires preparation in order to perform as expected. Substrate must be profiled clean, sound, and dry. Substrate must be primed with DUR-A-SHIELD, DUR-A-POXY HIGH GLOSS, or DUR-A-GLAZE TIE-COAT, and sufficiently coated with DUR-A-GARD, SHOP FLOOR or DUR-A-CRETE. Please refer to the master "Surface Preparation Guide" for more information.

APPLICATION METHOD/SPREAD RATE

POLY-THANE #3 is typically applied with brush and roller at approximately 400 Sq Ft per gallon to yield a dry film thickness of 3 mils.

LIMITATIONS

This product is best suited for application in temperatures between 55°F and 95°F. Substrate must be clean, sound, and dry. Ignition sources, sparks and open flame must be avoided during application especially in confined areas. POLY-THANE #3 is highly flammable in its liquid state. Moving air with exhaust ventilation is necessary in most instances.

PACKAGING

POLY-THANE #3 is available in 1 gallon cans, 5 gallon pails, and 50 gallon drums.

CHEMICAL RESISTANCE

This product is resistant to many common chemicals. Please refer to the master "Chemical Resistance Chart" for actual resistance to specific chemicals/reagents.

POLY-THANE #3

TECHNICAL INFORMATION

Mix Ratio, by Volume	2:1
Working Time, 72°F, (parts combined)	3 - 4 hours
Shelf Life, 72°F	1 year in unopened containers
Color	Pigmented in standard colors
Viscosity	150 cps at 72°F
Drying Properties, 72°F, 50% R.H	Touch Dry - 1.5 hrs.
8 mil wet film	Recoat - 3-4 hrs.
Hard Dry	8-10 hrs.
Chemical Resistance	5 - 7 days
Flash-point, Closed Cup Test	110°F

Physical Property	Test Method	Result
60 Gloss	ASTM D-523	90+
Impact Resistance	ML D-2794	>160
Solids by volume		60+/-5*
Adhesion	ASTM D-4541	630 psi
Hardness	ASTM D-3363 ASTM D-2134	3H 40+
QUV	UVB-373/1500hrs	Gloss Retention
Flexibility (1/4: Cylindrical mandrel)	ASTM D-1737	Pass
Elongation	ASTM D-2370	9%
Tensile Strength	ASTM D-2370	7,000 psi
Coefficient of Friction	ASTM D-2047	>0.6
Abrasion Resistance CS17 wheel (1000g load) 1000 Cycles	ASTM D-4060	15 mg loss

* Depends on color selected.

GUIDE SPECIFICATIONS

This product is part of the DUR-A-FLEX family of polymer systems. Please refer to the master “**Specifier’s Guide**” for complete three part guide specs.

MOISTURE CONCERNS

Moisture vapor transmission in the slab should be measured prior to application of polymeric systems to ensure a long lasting, durable installation. Please refer to the master “**Moisture Guidelines**” for more information.

DRAWINGS AND DETAILS

Standard CAD drawings and details are available for coves, drains, breaches, transitions, etc. Please refer to the master “**Drawings and Details**” guide for actual drawings.

CLEANING

This product is considered a low maintenance flooring solution, however, certain textures and service environments do require certain procedures. Please refer to the master “**Cleaning Guide**”.

CAUTION

Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Use only as directed. KEEP OUT OF REACH OF CHILDREN.

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DUR-A-GARD

DESCRIPTION

DUR-A-GARD Epoxy Coating is a pigmented, two component, low odor, 100% solids, thermosetting epoxy designed especially for flooring applications subjected to moderate traffic and chemicals. DUR-A-GARD Epoxy Coating is ideally suited for application on concrete, wood and metal. This coating is extremely durable, sanitary and easy to clean. The high gloss, tile-like finish is stain-resistant and virtually unaffected by oil, grease, gasoline, strong detergents and salt.

BENEFITS

- Stain Resistant
- Easy to Clean
- Good Color Stability
- Durable
- Low Viscosity

COLORS

Dur-A-Gard is available in 17 standard colors. Refer to the Standard Color Chart for actual colors. Custom colors are also available. See limitations for certain colors.

TYPICAL USES

- Laboratories
- Garages
- Pharmaceutical Plants
- Food Processing Plants
- Clean Rooms
- Hospitals
- Laundries
- Kennels
- Bottling Plants

PACKAGING

DUR-A-GARD Epoxy Coating is packaged in 1 gallon cans, 5 gallon pails and 50 gallon drums. Shelf life is one year in unopened containers.

CHEMICAL RESISTANCE

This product is resistant to most common chemicals. Please refer to the master "Chemical Resistance Chart" for actual resistance to specific chemicals/reagents.

SURFACE PREPARATION

This product requires preparation in order to perform as expected. Substrate must be profiled, clean, sound, and dry. Substrate must be primed with DUR-A-SHIELD, DUR-A-POXY HIGH GLOSS, or DUR-A-GLAZE TIE-COAT. Please refer to the master "Surface Preparation Guide" for more information.

APPLICATION METHOD /SPREAD RATES

DUR-A-GARD is typically applied with a roller at approximately 100-200 Sq Ft per gallon, depending on substrate type and condition. See DUR-A-GARD Application Instruction Sheet for complete instructions.

LIMITATIONS

This product is best suited for application in temperatures between 55°F and 95°F. Substrate must be clean, sound, and dry. Some light colors may require multiple coats for adequate hiding power. Certain colors appear white when scratched. Light Blue, and Smoke Blue should be topcoated with POLY-THANE #3 to reduce the "White" appearance of scratches.

CLEANING

This product is considered a low maintenance flooring solution, however, certain textures and service environments do require certain procedures. Please refer to the master "Cleaning Guide".

"SPECIAL PURPOSE" FORMULATIONS

1. **DUR-A-GARD "Regular"** has good color stability and a fairly low viscosity so it is easy to apply. However, it is very sensitive to water and moisture during its curing period. The surface must be perfectly dry during application.
2. **DUR-A-GARD "No Sag"** is designed for wall applications to avoid "coating sag". "No Sag" features the extended pot life and working time necessary for working on walls.
3. **DUR-A-GARD "Fast"** is a fast curing hardener designed for fast curing intermediate coats.
4. **DUR-A-GARD "OPF"** is designed to be used as the first and / or second topcoat to yield a uniform "orange peel" finish.
5. **CRETE-GARD** is designed as a topcoat for DUR-A-CRETE, and to achieve a heavy orange peel texture.
6. **DUR-A-GARD "SH"** is designed to withstand super high shear loads found in high lift areas.
7. **DUR-A-GARD "SL"** is a filler enhanced 100% solids epoxy designed to yield a thicker (35-100 Mils) finish.

DUR-A-GARD

TECHNICAL INFORMATION

Color	Available In All Standard Colors	
Mix Ratio (by volume)	1 Part Hardener To 2 Parts Resin	
Viscosity at 70° F	700 cps	
Pot life at 70° F	20 – 25 Minutes	
Cure Time, Touch Dry at 70° F	4 – 6 Hours	
Cured Film Thickness	16 Mils at 100 Sq. Ft. / Gallon Spread Rate	
Toxicity	Non – Toxic, USDA Approved	
Physical Property	Test Method	Result
Hardness (Shore D)	ASTM D-2240	70-80
Compressive Strength	ASTM D-695	16,000 psi
	ASTM C-579	10,500 psi
Tensile Strength	ASTM D-638	3,000 psi
	ASTM C-307	1,950 psi
Tensile Elongation	ASTM D-638	7.50%
Flexural Strength	ASTM D-790	4,000 psi
	ASTM C-580	2,900 psi
Flexural Modulus of Elasticity	ASTM D-790	5.5×10^5
Linear Shrinkage	ASTM D-2566	0.02%
Linear Expansion	ASTM D-696	2×10^{-5}
Bond Strength to Concrete	ASTM D-4541	400 psi substrate fails
Indentation	MIL D-3134	.025 MAX
Impact Resistance	MIL D-3134	Pass
Water Absorption	ASTM D-570	0.04%
Heat Resistance Limitation		140°F - 200°F
Flammability	ASTM D-570	Self Extinguishing
Flame Spread/NFPA 101	ASTM E-84	Class B
Abrasion Resistance CS17 Wheel 1000 GM Load 1000 Cycles	ASTM C-501	
		35 mg loss
Coefficient of Friction Orange Peel Smooth	ASTM D-2047	
		0.8
		0.7

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