



Commercial, LLC

COATINGS - SEALANTS - VWC - EPOXY FLOOR SYSTEMS

Bid Document

Bid No: 11073-1
Project Name: DuPont Exterior Painting
RTP, NC

Date of Bid: June 7, 2010 **Date of Original Bid:** Same

Addenda Included: Not Applicable

1. General Work Scope

- 1.1 Prepare all surfaces to receive coatings
- 1.2 Paint the following items:
 - A. Exterior metal screen wall and steel channel at windows
 - B. Pedestrian bridge including structural steel, metal decking, handrails, and guardrails
 - C. Camera poles and card reader posts
 - D. Steel at top of light poles
 - E. Service yard screen wall
 - F. Metal canopy and handrails at west entrance
 - G. Exterior metal doors
- 1.3 Caulk as required at surfaces receiving paint
- 1.4 Daily clean up

2. Detailed Work Scope

2.1 General Conditions

2.1.1 Exits, Egress, and IAQ

Special consideration has been given to the general conditions that exist due to the building being occupied by DuPont personnel while the renovation is being performed. QC Commercial (henceforth QC) will always maintain unimpeded access to and from the building during DuPont's normal business hours. Much of the work to the building exits and egress paths will take place on weekends. Indoor air quality issues will also be considered, and the appropriate steps will be taken to ensure that no overspray or paint fumes enter the building through air intakes or openings. All work will be scheduled in advance with the DuPont project manager.

2.1.2 Barricades and Protective Measures

Prior to the commencement of any work, areas under renovation will be cordoned off with various safety barriers, e.g., traffic cones, temporary walls, etc. The building and surrounding landscaping will be protected using plastic curtain walls. All barricade material will be removed as soon as the area being renovated is complete and all workmanship has been accepted by DuPont.

Plastic curtain walls will be installed at two locations, i.e., the rear pedestrian bridge and the front building facade. One curtain will drop from where the top of the screen walls abut to the front building facade and will hang to the ground, blocking the outside view from inside the building. The second curtain will divide the upper walkway of the pedestrian bridge into two sections allowing DuPont personnel to enter and exit the building without being exposed to the renovation work.



2.1.3 Heavy Equipment

Various means of accessing the work will be used, including man-lifts and swing stages. All operators will be certified to use such devices and certifications will be made available to DuPont upon their request. Swing staging will be installed and maintained by Associated Scaffolding, Inc.

2.1.4 Bonding

If bonding is required, QC will obtain a Payment and Performance Bond at a rate of 2.5% of the contract value. This cost will then be added to the contract amount.

2.1.5 General Conditions Not-In-Contract

Areas where trees and other foliage impede on the work will have to be removed, cut back, or pruned to allow access by the painters. This work is not included in QC's proposal and is scheduled to be performed by DuPont's contractor. At DuPont's request, QC will provide alternate pricing for this work.

2.2 Mobilization

Prior to mobilizing workers, equipment, and materials, QC will issue a material submittal for DuPont's approval. If requested, QC will also issue a copy of its project specific safety plan. Once these documents are approved, QC will deploy workers and equipment to the site per DuPont's schedule. Materials will be moved to and from the site daily, however, heavy equipment will only be delivered once and remain onsite for the duration of the project. QC personnel will be drug and alcohol screened prior to working on the site. Also, at DuPont's discretion, QC personnel will attend onsite safety orientation provided by DuPont or its designee.

QC typically requests a minimal two week notice prior to mobilization. Mobilization is also dependent on direct material availability.

2.3 Surface Preparation

All surfaces scheduled to receive coatings will be properly prepared using the specifications provided by DuPont and the standards and guidelines set forth by the Painting & Decorating Contractors of America (PDCA) and the Society for Protective Coatings (SSPC). Unless some other overriding standard is written into the contract, PDCA is recognized as the official governing industry standard for any agreement entered in to by QC Commercial, LLC.

Preparation to the painted steel will begin with pressure washing to remove dirt, foreign material, loose paint, and oily film. Areas that exhibit rust and corrosion will be water blasted to remove loose scale. Any remaining rust or corrosion will be removed with hand tools or power grinding equipment and then treated with a rust inhibiting epoxy primer. Preparation also includes masking off surrounding areas, e.g., windows, walkways, landscaping, building facade, etc.

2.4 Mockup

Prior to commencing full scale deployment, QC will provide a mockup at one or two areas as mutually agreed upon by QC and DuPont. The purpose of the mockup will be to determine process, color selection, surface preparation standards, and final inspection criteria. During the mockup an adhesion test will be performed to ensure a good bond and compatibility between the existing coating and the new coating system being applied. QC will use adhesion test ASTM D 3359. Once the mockup has been accepted by DuPont, the results will be used as the acceptance standard going forward.



2.5 Coatings

QC's proposal is based on project specifications which call for DuPont's Imron Industrial Strength Urethane over Corlar 2.1 ST polyamide epoxy primer. Prior to the application of the first coat of urethane, the epoxy primer will be applied to corroded areas and areas where bare metal is exposed. A second coat of epoxy primer will be applied if necessary. Application methods will use brushes, rollers, and spray equipment. Where spray equipment is used, specified mil thickness requirements will be achieved with one coat of urethane. Where brushes and rollers are used, two coats of urethane will be applied to achieve specified mil thickness requirements.

2.6 Clean Up and Demobilization

Clean up will occur on a daily basis, however, at project completion all equipment, tools, and material will be permanently removed from the site. Where booms or other man-lifts are required, every effort will be made to protect the landscaping. In the event minor damage to grassy areas occurs, repairs will be made by QC's landscaping contractor, Landcraft, Inc.

3. Schedule of Values and Pricing Summary

Work Scope	Material Pricing	Labor Hours	Labor Pricing	Extended Pricing
Screen Walls – Building Perimeter	\$24,815	1052	\$29,044	\$53,859
Screen Walls – Service Yard	\$1,521	42	\$1,159	\$2,680
Pedestrian Bridge & Main Entry	\$15,911	661	\$18,252	\$34,163
Doors, Handrails, Poles, Misc Steel	\$2,741	213	\$5,878	\$8,619
General Conditions	–	–	–	\$9,466
Lift Equipment	–	–	–	20,475
Totals:	\$44,988	1,968	\$54,333	\$129,262

Notes:

- 1) Each scheduled value includes labor, materials (direct and indirect), overhead, markups, supervision, safety orientation, insurance, warranties, taxes, travel, closeout documents, mockups, and submittals.
- 2) For direct material cost breakdown reference Attachment A.
- 3) For lift equipment cost breakdown reference Attachment B.
- 4) Overtime rates do not apply to this project unless the schedule is accelerated by DuPont.

4. Durations

Based on the projected labor hours required, project duration is estimated to be thirty-five working days using seven craftsmen, one working foreman, and one supervisor. Total project duration is subject to weather conditions, however, the thirty-five day projection factors in approximately ten percent down time due to inclement weather.

Estimated durations are largely based on equipment costs. An accelerated schedule will drive overall project costs up due to the additional man-lifts needed to accommodate the shortened schedule. A breakdown of equipment costs is shown in Attachment B.

Workers will be available to work between 7:00 am and 6:00 pm Monday through Saturday and will adhere to DuPont's scheduling restrictions. Sunday work is an option but is discouraged.

5. Clarifications / Exclusions

- 5.1 Number of colors not to exceed three: one color for all structural steel, screen walls, and miscellaneous metal; one color for the pedestrian bridge decking; one color for the man-doors and service yard screen wall.
- 5.2 Tree pruning NIC. Work performed by others.



Commercial, LLC

- 5.3 DuPont to provide a water source for pressure washing.
- 5.4 DuPont to provide both 120V and 220V electrical source for equipment.
- 5.5 Pricing assumes QC will receive favorable terms on DuPont product purchases. QC does not currently have an account with DuPont's distributors but typically has sixty day term agreements with its direct material suppliers. If favorable terms cannot be reached, QC will substitute the urethane product with an alternate by Sherwin-Williams (ref. Attachment C).
- 5.6 Progress invoices will be submitted as areas of work are completed and subsequently accepted. Invoice amounts to be proportionate to the amount of work completed.

6. Environmental, Health, and Safety (EHS)

QC Commercial is committed to providing a work place that protects the health and safety of its employees and the communities surrounding its operations. It is QC's environmental, health, and safety policy that no project is so important and no service so urgent, that it cannot take time to perform work safely, and in an environmentally conscientious manner.

A controlled copy of QC's EHS policy has been submitted to DuPont for review. Upon receiving a contract, QC will, at DuPont's request, prepare a project specific environmental and safety plan.

7. Alternates

7.1 Alternate 1: Boiler Stack

QC will apply the same methods and materials described in the base bid to paint the boiler stack if required. A price for this alternate is listed as a separate item below. Alternate pricing is only valid if the work is performed within the same mobilization period as that of the main exterior painting project. More specifically, if the boiler stack cannot be painted while the 85' boom lift is on rent, an additional \$2,700 will be needed for the added leasing costs.

8. Pricing – Lump Sum:

8.1 DuPont Exterior Painting Project

<u>\$129,262.00</u>	<u>One Hundred Twenty-Nine Thousand Two Hundred Sixty-Two Dollars</u>
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8.2 Alternate 1: Boiler Stack

<u>\$8,400.00</u>	<u>Eighty-Four Hundred Dollars</u>
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QC Signature

June 7, 2010

Date

CONFIDENTIALITY

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Direct your comments, questions, and/or suggestions to:

QC Commercial, LLC
Attn: Russ Phillips
e-Mail: russ@qccommercial.com



ATTACHMENT A: Direct Material Costs

Product	Description	Unit Cost	Requirements	Extended Cost
Corlar 2.1 ST	Epoxy Primer	\$60.25	55 Gallons	\$3,325
Imron Industrial Strength	High Gloss Urethane	\$85.61	458 Gallons	\$39,235
Totals:				\$42,560

Notes:

- 1) Costs do not include taxes, freight, or MOH. QC applies a 20% MOH to all direct material to cover sundries, handling, waste, disposal, and other material overhead costs. North Carolina currently has a 7.75% sales tax. Origin of material has not yet been determined.
- 2) Indirect materials, e.g., plastic curtain walls, barricades, etc., are not included in the cost table above.
- 3) QC's overall pricing will be reduced if DuPont is able to supply the material at a lower unit cost.

ATTACHMENT B: Lift Equipment Costs

Equipment Description	Qty	Monthly Cost	Extended Cost
Boom Lift 85'	1	\$3,600	\$3,600
Boom Lift 65'	1	\$2,200	\$4,400
Articulating Boom 30'	1	\$1,750	\$3,500
Swing Stage 24'	1	\$4,000	\$8,000
Totals:			\$19,500

Notes:

- 1) Monthly costs include pickup, delivery, setup, insurance, taxes, certifications, and fees.
- 2) Totals do not include QC's 5% overhead markup on equipment.
- 3) Extended costs based on two months rental on all equipment except for the 85' boom lift.



ATTACHMENT C: Alternate Materials (Sheet 1 of 2)



Protective
&
Marine
Coatings

WATERBASED ACROLON 100

WATER BASED URETHANE

PART A B65-720 SERIES
PART B B65V720 HARDENER

PRODUCT INFORMATION

Revised 9/09

5.31

PRODUCT DESCRIPTION

WATERBASED ACROLON 100 URETHANE is an advanced technology, low VOC, water based, acrylic urethane. Provides performance properties comparable to premium quality solvent based urethanes. This is a high gloss abrasion resistant urethane that has excellent weathering properties.

- Retains its appearance over a wide range of chemical, weather, and mechanical conditions
- Can be applied directly to water based and solvent based organic zinc rich primers
- Low odor
- Non-flammable
- <100 g/L VOC
- HAPS Free

PRODUCT CHARACTERISTICS

Finish: High Gloss

Color: Wide variety of colors available

Volume Solids: 48.5%±2%, catalyzed, unreduced
May vary by color

Weight Solids: 59%±2%, catalyzed, unreduced
May vary by color

VOC (EPA Method 24): Unreduced: <100 g/L; 0.83 lb/gal
May vary by color Reduced: <100 g/L; 0.83 lb/gal

Mix Ratio: 4:1 by volume

Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	4.0	100	8.0	200
Dry mils (microns)	2.0	50	4.0	100
~Coverage sq ft/gal (m ² /L)	195	4.8	390	9.5
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	776	19.0		

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 5.0 mils wet (125 microns):

	@ 55°F/13°C	@ 77°F/25°C	@ 120°F/49°C
	50% RH		
To touch:	3 hours	1.5 hours	45 minutes
To handle:	12 hours	6 hours	2 hours
To recoat:			
minimum:	16 hours	8 hours	2-4 hours
maximum:	3 months	3 months	3 months
To cure:	14 days	10 days	2 days
Pot Life:	2.5 hours	2 hours	45 minutes
Sweat-in-Time:	None		

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	>230°F (110°C) Seta, catalyzed
Reducer:	Water 5-15% minimum reduction required For brush and roll
Clean Up:	Water

RECOMMENDED USES

- For use over prepared substrates in industrial and marine environments, such as:
 - Offshore platforms
 - Structural steel
 - Paper mills
 - Bridges
 - Refineries
 - Marine applications
 - Exterior surfaces of steel tanks
 - Rail cars and locomotives
 - Power plants
 - Conveyors
 - Nuclear power facilities
 - Floors
- Chemical processing equipment
- Industrial machinery and equipment
- Suitable for use in USDA inspected facilities
- Acceptable for use in high performance architectural applications.

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

- 1 ct. Waterbased Tile-Clad Primer @ 4.0 mils (100 microns) dft
 - 1 ct. Waterbased Acrolon 100 Urethane @ 3.0 mils (75 microns) dft
- *unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4080, CS17 wheel, 1000 cycles, 1 kg load	25 mg loss
Accelerated Weathering - QUV	ASTM D4587, QUV-A, 2000 hours	Passes
Adhesion	ASTM D4541	1,080 psi
Corrosion Weathering	ASTM D5894, 10 cycles, 3360 hours	Rating 10 per ASTM D610 for rusting, no more than 1/8" rust creepage at scribe
Direct Impact Resistance	ASTM D2794	>160 in lb
Dry Heat Resistance	ASTM D2485	200°F (93°C) constant, 250°F (121°C) intermittent
Flexibility	ASTM D522, 180° bend, 1/8" mandrel	Passes
Pencil Hardness	ASTM D3363	3H
Salt Fog Resistance (Zinc Clad IV, 2 coats of Waterbased Acrolon 100)	ASTM B117, 4,000 hours	Rating 9 per ASTM D610 for rusting
Thermal Shock	ASTM D2246, 10 cycles	Passes

Meets the requirements of SSPC Paint No. 36, Level 3



ATTACHMENT C: Alternate Materials (Sheet 2 of 2)



Protective
&
Marine
Coatings

WATERBASED ACROLON 100

WATER BASED URETHANE

PART A B65-720
PART B B65V720

SERIES
HARDENER

PRODUCT INFORMATION

5.31

RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Steel:		
1 ct. Procryl Universal Primer	2.0-4.0	(50-100)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Steel:		
1 ct. Procryl Universal Primer	2.0-4.0	(50-100)
1 ct. Waterbased Tile-Clad Coating	2.0-4.0	(50-100)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Steel:		
1 ct. Zinc-Clad VI WB Primer	2.0-3.0	(50-75)
1 ct. Waterbased Tile-Clad Primer	2.0-4.0	(50-100)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Steel:		
1 ct. Zinc-Clad VI WB Primer	2.0-3.0	(50-75)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Steel:		
1 ct. Zinc-Clad IV Primer	3.0-4.0	(75-100)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Steel:		
1 ct. Epolon II Rust-Inhibiting Primer	2.0-4.0	(50-100)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Galvanizing:		
1 ct. DTM Wash Primer	0.7-1.3	(18-32)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Aluminum:		
1 ct. DTM Wash Primer	0.7-1.3	(18-32)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Concrete/Masonry (High Performance):		
1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer	10.0-20.0	(250-500)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)
Concrete/Masonry:		
1 ct. Heavy Duty Block Filler	10.0-18.0	(250-450)
1-2 cts. Waterbased Acrolon100 Urethane	2.0-4.0	(50-100)

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

- * Iron & Steel: SSPC-SP8/NACE 3
- * Aluminum: SSPC-SP1
- * Galvanizing: SSPC-SP1
- * Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI 03732, CSP1-3

* Requires primer

Do not use hydrocarbon solvents for cleaning

Surface Preparation Standards

Condition of Surface	ISO 8501-1 B87078-A1	Swedish Std. S18055800	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Power Tool Cleaning	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	SP 3	-

TINTING

Tint Part A with BAC or EnviroToner Colorants. Use the 100% tint strength formula pages. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature: 55°F (13°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
Part A: 1 gallon (3.78L), 4 gallon (15.1L) in a 5 gallon (18.9L) pail
Part B: 1 quart (0.94L), 1 gallon (3.78L) (premeasured components)

Weight: 10.3 ± 0.2 lb/gal ; 1.24 Kg/L, catalyzed

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORILY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.