SECTION 00 91 13.1 ADDENDUM #1

1.1 PROJECT INFORMATION

A. Capitol & Myrtle Garage Route & Seal Repairs Project

B. Owner: Capital City Development Corporation

C. Date of Addendum: April 22, 2025

1.2 NOTICE TO BIDDERS

A. This Addendum is issued pursuant to the Conditions of the Contract. This addendum serves to clarify, revise, and supersede information in the Project Manual and Drawings. Portions of the Addendum affecting the Contract Documents will be incorporated in the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

C. The date for receipt of bids is unchanged by this Addendum, at same time and location.

1. Bid Date: April 29, 2025, by 3:00 p.m.

1.3 REVISIONS TO DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

1. Document 00 01 10 TABLE OF CONTENTS: Revised to insert line 00 91 13.1 ADDENDUM #1

1.4 COMPARABLE PRODUCT APPROVAL

A. Engineer and Owner have approved the use of comparable products for the project. Bidders may use the products stated in the bid specifications 071800.2.1, OR the following may be used:

Manufacturer	**Comparable Product**	**Documentation**
APT, Advanced Polymer Technology	Qualideck	See attached

1.5 QUESTIONS

A. The following questions were asked during the bid period from April 9 – April 23, 2025. The following answers are provided by Owner to assist the Bidders.

1. Q: It looks like some of the coating is on concrete that is over metal pan deck. Typically, we would not coat concrete on metal pan deck without the pan being vented. The other option would be to use a vapor barrier. (Water

can get trapped in the metal pan and cause de-bonding of the coating). Should we be including a vapor barrier in those areas?

ANSWER: For new construction of concrete fill over unvented decking, a vapor barrier would be appropriate. For this project, a vapor barrier is not required as part of the coating system. The existing concrete fill over the metal decking is fully cured. Per specification, the existing concrete surfaces should be visibly dry and show no condensation after a rubber mat test prior to application of the coating system.

LIST OF DOCUMENTS	NO. OF PAGES
This Addendum #1 issued April 23, 2025	2
Comparable Request/Approval/Documentation	35

END OF SECTION 00 91 13.1

SECTION 00 43 25 REQUEST FOR APPROVAL OF COMPARABLE PRODUCTS FORM

For use during bidding process only.

TO: Kent Soelberg DATE: 4-21-2025

TIME: 3:00 pm

PROJECT NAME AND LOCATION: **CAPITOL & MYRTLE GARAGE ROUT & SEAL REPAIRS PROJECT**

We hereby submit for your consideration the following product instead of the specified item for the above project:

SECTION	PARAGRAPH	SPECIFIED ITEM
07-18 00-1	2.1	Traffic Coatings

Proposed Comparable Product: Qualipur Traffic Coating

Reason for Request: Product cost savings for project

Provide the following information either below or as attachments:

A. Include complete information on changes to Drawings and/or Specifications that the proposed comparable product would require for its proper installation. Include complete technical data, including laboratory tests, if applicable.

B. Provide evidence that the proposed product does not require substantive revisions to the Project Manual, that it is consistent with the Project Manual and will produce the indicated results, and that it is compatible with the other portions of the Work.

C. Will the undersigned Bidder or interested individual pay for changes to the Project design, including engineering and detailing costs caused by the requested comparable product? Yes _____ No X

D. Provide description of differences between comparable product and specified item. Include detailed comparison of significant qualities of proposed product with those named in the Specifications. See Section 01 60 00 for more information.)

E. What effect does comparable product have on other trades?

F. Provide evidence that proposed product provides specified warranty.

G. List similar installations for completed projects. For each project, provide the project name; contact information for key person responsible for project including name, address, telephone number and email address; and names, telephone numbers and email addresses for the owner and project Engineer. Completed projects used as examples shall be accessible to Project Engineer and Owner.

H. Provide Samples, if requested.

I. Quantify the different in product cost, product delivery time and time of installation.

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted By: Joshua Fuentes

Firm: Western Specialty Contractors

Address: 5055 N Washington St, Denver, CO 80216

Telephone: 720-775-7782 Email: joshuaf@westerngroup.com

Remarks:

Instructions/Information for Person Completing this Form (continues on following page)

Bidder's request for comparable product approval shall be in writing and shall be accompanied by a completed "Request for Approval of Comparable Product" Form.

1. Requests shall be submitted to the Project Engineer no later than 5:00 p.m., seven (7) days prior to bid due date. Requests that are incomplete will be rejected.
2. Project Engineer shall make the determination whether to allow a comparable product no later than the last day for issuing addenda for project. An addendum shall notify bidders that a comparable product has been approved.
3. Project Engineer and/or Owner may determine, in their sole discretion that there is insufficient information or time to analyze a product given the time allowed for a decision by the Project Engineer.

For Use by Project Engineer:

□ Recommended X Recommended at noted By: Kent Soelberg, Jacobs

□ Not recommended □ Received too late Date: 21 April, 2025

For Use by Owner:

X Approved _____ Rejected

Owner's Representative: Aaron Nelson Date: 4/22/2025

END OF SECTION 00 43 25

Notes by Project Engineer: Installation of the Qualipur Traffic Coating System components shall comply with the manufacturer's written instructions, including placement, slab restoration, surface preparation, and detail preparation as described in the Technical Data Guide provided with this request.

Kent Soelberg, Jacobs
21April2025

A. Include complete information on changes to Drawings and/or Specifications that the proposed comparable product would require for its proper installation. Include complete technical data, including laboratory tests, if applicable.
    a. No changes to drawings/specifications. See attached file “Coating Comparison” for technical data.
B. Provide evidence that the proposed product does not require substantive revisions to the Project Manual, that it is consistent with the Project Manual and will produce the indicated results, and that it is compatible with the other portions of the Work.
    a. See attached files “Coating Comparison” and “Qualideck Warranty” for this information.
C. Will the undersigned Bidder or interested individual pay for changes to the Project design, including engineering and detailing costs caused by the requested comparable product? Yes _____ No __X__
D. Provide description of differences between comparable product and specified item. Include detailed comparison of significant qualities of proposed product with those named in the Specifications. See Section 01 60 00 for more information.)
    a. See attached file “Coating Comparison” for differences between proposed new product and original proposed products.
E. What effect does comparable product have on other trades?
    a. No effects.
F. Provide evidence that proposed product provides specified warranty.
    a. See attached file “Warranty” for warranty information.
G. List similar installations for completed projects. For each project, provide the project name; contact information for key person responsible for project including name, address, telephone number and email address; and names, telephone numbers and email addresses for the owner and project Engineer. Completed projects used as examples shall be accessible to Project Engineer and Owner.
    a. Project Name: Charles Schwab Traffic Coating
    (153,000 SQFT Qualipur traffic coating)
        i. Contact Information – Key Person Responsible:
            1. Name: Scott Grainger (Western Specialty Contractors)
            2. Address: 5055 N Washington St, Denver, CO 80216
            3. Telephone: 970-331-1714
            4. Email: scottg@westerngroup.com
        ii. Contact Information – Owner

1. Name: Jon Rosenburg
2. Address: 9800 Schwab Way, Lone Tree, CO 80124
3. Telephone: 720-576-3564
4. Email: jon.rosenburg1@schwab.com

iii. Contact Information – Project Engineer

1. Not applicable, no Project Engineer

H. Provide Samples, if requested.
   a. Samples not requested.

I. Quantify the difference in product cost, product delivery time and time of installation.
   a. Rationale for change: Product cost of Qualipur traffic coating is more cost effective than the originally proposed products without compromising on quality of coating. Proposed product (Qualipur) would save upwards of $2 SQFT in product cost. Product delivery time and time of installation would remain constant with the original project proposal.

Charles Schwab Garage Repairs 2024

HD Traffic Coating System Comparison

Qualideck

Vs.

MasterSeal

Product Comparison

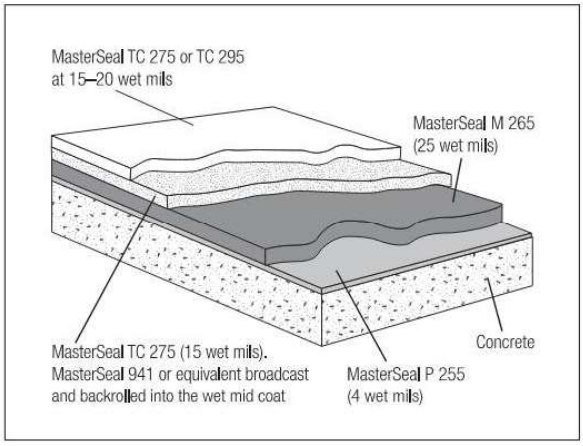
Please review the product data sheets provided for a more in-depth review of each traffic coating system. The below information is a high-level comparison of two heavy duty traffic rated waterproofing coating systems that are commonly used nationally to protect and elongate the overall health of concrete surfaces and parking garages.

System Components

BASF MasterSeal HD 2500	**APT Qualideck HD System**
Primer – 2 component polyurethane	Primer – 2 component polyurethane
Base – 2 component polyurethane	Base – 2 component polyurethane
Intermediate-2 component polyurethane	Intermediate-2 component polyurethane
Top–2 component aliphatic polyurethane	Top–2 component aliphatic polyurethane
Total Mil Thickness – 55 Mils+	Total Mil Thickness – 55 Mils+

Components are essentially the same for each layer and the required total mil thickness to achieve a Heavy-Duty Traffic Rating with a 5 year warranty is 55 Mils for each.

Heavy Traffic System

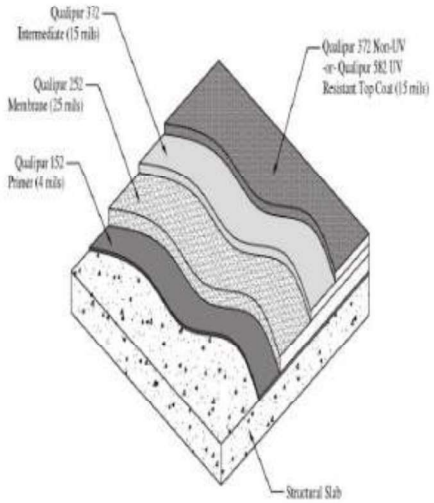


BASF Corporation
Construction Systems
889 Valley Park Drive
Shakopee, MN 55379 USA
master-builders-solutions.basf.us
Customer Service 1(800) 433.9517
Technical Service 1(800) 243.6739

MASTER® BUILDERS SOLUTIONS

Heavy Duty Traffic System

Qualideck



Key Attributes

Qualideck excels in two major areas: Base Coat Elongation & Intermediate Coat Tensile Strength.

Base Coat Elongation: Qualideck's base coat as the highest elongation rate between the two systems; Qualideck = 1100% & BASF = 900%. Elongation is the material's ability to stretch without breaking under stress. This is the most critical function of a waterproofing base coat, the ability to bridge cracks and joints in the concrete deck without breaking/failing during the changes in temperature.

Intermediate Coat Tensile Strength: Qualideck's intermediate coating has a higher tensile strength between the two systems; Qualideck = 4,200psi & BASF = 3,000psi. The higher the tensile strength the greater the pulling force the coating can handle. The intermediate coating is also referred to as the wear coat in a traffic coating system, making it the second most critical part of the system as this section of the coating retains the aggregate, the film integrity, and handles the forces of daily vehicular tire traffic.

Qualideck Elongation & Tensile Comparison to Other Coatings

Test Data

PROPERTY	RESULTS	SPECIFICATIONS	TEST METHOD
Crack bridging, MasterSeal M 265	Passes	No cracking	ASTM C 957
Adhesion peel, pli, Primer and Base Coat			ASTM C 957
Plywood	25	3	
Concrete	14	5	
Adhesion (Pull-off), psi MasterSeal P 255 / MasterSeal M 265	400	—	ASTM D 4541
Tensile strength, psi (MPa),			ASTM D 412
Base Coat	3,400 (23.4)	Control	
MasterSeal TC 275	3,000 (20.7)	Control	
MasterSeal TC 295	3,400 (23.4) /	Control	
Pre-pigmented / Tint Base	3,000 (20.7)		
Elongation, %,			ASTM D 412
Base Coat	900	Control	
MasterSeal TC 275	30	Control	
MasterSeal TC 295	340 / 390	Control	
Pre-pigmented / Tint Base			
Hardness, Shore A			ASTM D 2240
MasterSeal TC 275	94	—	
MasterSeal TC 295	94 / 90	—	
Pre-pigmented / Tint Base			
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, MasterSeal P 255 / M 265 / TC 275	100	—	ASTM D 4060
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, MasterSeal P 255 / M 265 / TC 275	47	—	ASTM D 4060

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

MasterSeal Tensile & Elongation Test Results

APT

Qualideck®

U.S. GREEN BUILDING COUNCIL

ISO 9001
ISO 14001

APT – an ISO 9001 & 14001 certified company

Qualideck®
www.qualideck.com

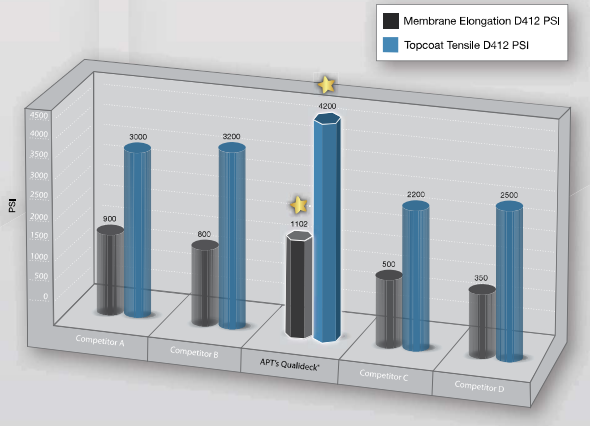
KEY REASONS TO SPECIFY QUALIDECK®

EXPERIENCED	30+ years manufacturing polyurethane coatings
PROVEN:	Over 50 million square feet installed with zero failures
SAFE:	Low VOCs, solvent free, contains no TDI, UL certified UL 723 & UL 790
DURABLE:	Withstanding the test of time ***2.5 million SF Toronto Airport garage (17+ years in service)*** ***US Embassy, Canada (15+ years in service)*** ***AT&T, Chicago (23+ years in service)***
QUALITY ASSURANCE:	ISO 9001 + 14001
FASTER:	Faster cure rate vs. competitive products
WARRANTIES:	Most competitive in the industry ***5 Year Manufacturer's Warranty 5+5 Year Manufacturer's Warranty*** ***5 Year Joint + Several-Certified Qualideck® Applicators Only 10 Year-See rep for details***
MADE IN USA:	Supports American jobs
ENVIRONMENTAL:	LEED credits available
CERTIFIED:	Approved/certified applicators assure quality at all levels

SUPERIOR PERFORMANCE

FEATURES & BENEFITS

- **Topcoat (4200 PSI, D412)**
  Longer wearing, holds aggregate better and longer
- **Membrane elongation (1103%, D412)**
  Prevents cracking through the topcoat

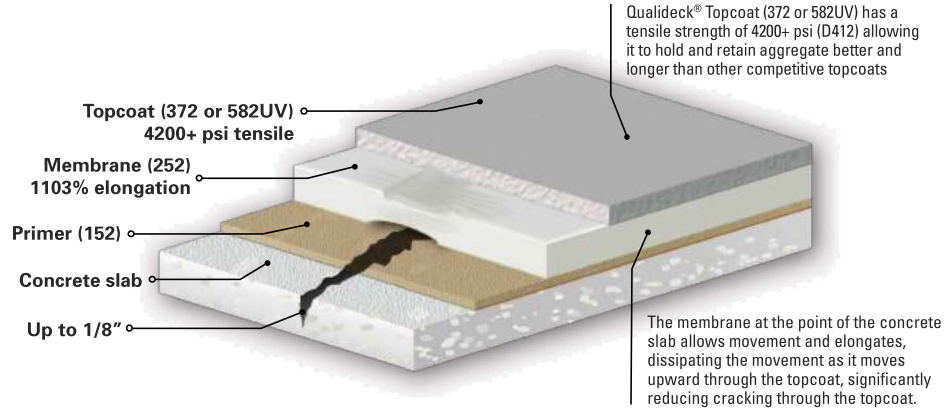


QUICK REFERENCE

Testing Data	Description	Primer	Membrane	Top Coat	Systems
ASTM D7234	Adhesion to Substrate	●	●		●
ASTM D412	Tensile/Elongation		●	●	
ASTM D1640	Cure Rate		●	●	
ASTM D2240	Hardness		●	●	
ASTM D573	Heat Resistance Tensile/Elongation		●	●	
ASTM D3137	Hydrolytic Stability Tensile/Elongation		●	●	
ASTM D471/D412	Water Absorption		●	●	
ASTM D903	Conc Adhesion		●		
WPC TT-3	Intercoat Adhesion			●	
ASTM C957	Chemical Resistance		●	●	
ASTM C1371	Thermal Emittance			●	
ASTM C1549	Solar Reflectance			●	
ASTM E1980	Solar Reflectance Index			●	
ASTM D2792	Solvent & Fuel Resistance			●	
ASTM C501	Abrasion Resistance			●	
ASTM D1149	Ozone Resistance			●	
ASTM D822/G53/D412	Weather Resistance			●	
ASTM D1004	Tear Resistance	●	●		●
ASTM E96	Moisture Vapor Transmission	●			●
WPC TT-4/ASTM CP57	Crack Bridging				●
ASTM D4541	Pull Off Adhesion				●
WPC TT-5/ASTM X501	Wear Resistance				●
ASTM C1028	Skid Resistance			●	●
ASTM C1202	Rapid Chloride Permeability				●

ALL QUALIDECK® PRODUCTS ARE LOW VOC AND ARE COMPLIANT WITH CALIFORNIA'S VOC REGULATIONS (<50g/L)

PERFORMANCE BY DESIGN



Qualideck®

Qualideck® Traffic Bearing Membrane

System	Medium Duty	Heavy Duty	Extra Heavy Duty	Extreme Duty
Primer Q152	4 mils	4 mils	4 mils	4 mils
Membrane Q252	25 mils	25 mils	25 mils	25 mils
Intermediate / Top Coat Q372 (Aromatic)	*15 mils	15 mils / 15 mils	25 mils / 15 mils	30 mils / 20 mils
UV Top Coat Q582 (Aliphatic)	*15 mils	15 mils	15 mils	20 mils
Sand Aggregate	10–15lbs / 100sf/ Coat	10–15lbs / 100sf / Coat	10–15lbs / 100sf/ Coat	10–15lbs / 100sf/ Coat
Total	*40 mils	55 mils	65 mils	75 mils

*NOTE: Use UV Q582 for full sun exposure or Q372 aromatic for non sun exposure

APT AMERICAS — APT ASIA PACIFIC

World Headquarters
109 Conica Lane, PO Box 160
Harmony, PA 16037 USA

Tel. (724) 452-1330
Fax. (724) 452-1703
Toll Free (888) 266-4221

Factory 3 Dunlopillo Drive
Dandenong Victoria 3175 Australia

Tel. +61 3 8792 8000
Fax. +61 3 8792 8001

ISO 9001 ISO 14001 APT – an ISO 9001 & 14001 certified company

www.qualideck.com

Qualideck®
Powered by APT

Specification and

Technical Data Guide

7 07 18 11 Traffic Coatings

Qualideck® Traffic Bearing Membrane

High-solids, 2-component polyurethane waterproofing, traffic bearing systems for vehicular and pedestrian areas

PACKAGING

- Q152 Primer: 3 gal kit
- Q252 Membrane: 5 gal kit
- Q372 Aromatic Topcoat: 4.5 gal kit
- Q461 Aromatic Topcoat: 5 gal
- Q552E Aromatic Intermediate: 5 gal kit
- Q582 Aliphatic Topcoat: 5 gal kit

YIELD

Please consult Qualideck consumption guide

COLORS

Light Grey, Dark Grey, Charcoal Grey, Black

STORAGE

Store unopened containers in cool, clean, dry area

SHELF LIFE

1 year when properly stored

DESCRIPTION

Qualideck TBM is a fluid-applied polyurethane waterproofing system. Qualideck TBM is a high solids, fast curing, low VOC, 2-component system for vehicular & pedestrian applications.

Qualideck TBM is composed of:

- **Q152**—a two-component polyurethane-based **primer**.
- **Q252**—a two-component, fast-curing, polyurethane **base coat (membrane)** with superior elongation properties.
- **Q372**—a two-component, fast-curing, **aromatic** polyurethane **top coat** that is low VOC and has superior performance characteristics (abrasion, tear and tensile strength).
- **Q461**—a one-component, fast-curing, **aliphatic** polyurethane **top coat** for UV exposure and has superior performance characteristics (abrasion, tear and tensile strength).
- **Q552E**—a two-component, fast-curing, **aromatic** epoxy **intermediate** that is low VOC and has superior performance characteristics (abrasion, tear and tensile strength).
- **Q582** (UV applications)—a two-component, fast-curing **aliphatic** polyurethane **top coat** for UV exposure that has excellent tensile strength, tear resistance and aggregate retention for a long service life.

PRODUCT HIGHLIGHTS

- Faster curing systems = faster turnover
- Low odor, high solids, non-flammable, solvent free
- Longest membrane elongation in the industry provides superior crack bridging, waterproofing and durability.
- Superior chloride and chemical resistance protecting structures from damage against chlorides, oil, gas and other contaminants typically found in areas where traffic coatings are specified and used.
- Superior durability and abrasion resistant. Skid resistant for increased safety

VOC CONTENT

- Q152: 7.1 g/L
- Q252: 7.7 g/L
- Q372: 20.5 g/L
- Q461: 166 g/L
- Q522E: 85 g/L
- Q582: 20 g/L

NOTE: APT also offers additional products (172 MVB) – SEE YOUR APT REP FOR TECH DATA SHEETS AND MORE DETAILS OR VISIT WWW.QUALIDECK.COM

Technical Data

Qualideck TBM is a two-component polyurethane membrane.

Typical Properties

PROPERTY	VALUE
Solids content, %	
Qualideck Q152 Primer	100
Qualideck Q 252 Base Coat	100
Qualideck Q 372 Aromatic TC	100
Qualideck Q 461 Aliphatic TC	83
Qualideck Q 522E Intermediate	100
Qualideck Q 582 Aliphatic TC	98
Viscosity, cps*	
Qualideck Q 152 Primer	600
Qualideck Q 252 Base Coat	1,700
Qualideck Q 372 Aromatic TC	1,600
Qualideck Q 461 Aliphatic TC	3,000
Quaideck Q 522E Intermediate	1,400
Qualideck Q 582 Aliphatic TC	2,000
Working Time, min*	
Qualideck Q 152 Primer	40-60 min
Qualideck Q 252 Base Coat	20-30 min
Qualideck Q 372 Aromatic TC	35-55 min
Qualideck Q 461 Aliphatic TC	Will vary (1K)
Qualideck Q 522E Intermediate	40-60 min
Qualideck Q 582 Aliphatic TC	30-50 min
Initial cure, hrs	
Qualideck Q 152 Primer	3-4
Qualideck Q 252 Base Coat	3–4
Qualideck Q 372 Aromatic TC	3–4
Qualideck Q 461 Aliphatic TC	5-10
Qualideck Q 522E Intermediate	4-6
Qualideck Q 582 Aliphatic TC	3–5

*Tested at 68° F and 50% relative humidity. Warm temperatures may shorten pot life. Cold temperatures may increase viscosity. Proper planning required.

Test Data

PROPERTY	RESULTS	SPECIFICATIONS	TEST METHOD
Crack bridging, Qualideck Q252	Passes	No cracking	ASTM C 957
Adhesion peel, pli, Primer and Base Coat			
Concrete	100% substrate failure		ASTM D7234
Adhesion (Pull-off), psi	>400	—	ASTM D 4541
Qualideck Q152 / Q252			
Tensile strength, psi (MPa),			ASTM D 412
Base Coat Q252 base coat / membrane	1,890.2* PSI	Control	
Qualideck Q372 aromatic top coat	4,200 PSI	Control	
Qualideck Q461 alipahtic top coat	1,111 PSI	Control	
Qualideck Q522E aromatic intermediate	11,920 psi	Control	
Qualideck Q582 aliphatic top coat	1,500 PSI	Control	
Elongation, %,			ASTM D 412
Base Coat Q252 base coat / membrane	1102.3%*	Control	
Qualideck Q372 aromatic top coat	42.9%	Control	
Qualideck Q461 aliphatic top coat	264%	Control	
Qualideck Q522E aromatic intermediate	8%	Control	
Qualideck Q582 aliphatic top coat	81%	Control	
Hardness, Shore A			ASTM D 2240
Qualideck Q461	84		
Hardness, Shore D			ASTM D 2240
Qualideck Q372 aromatic top coat	69	—	
Qualideck Q522E aroatic intermediate	75	—	
Qualideck Q582 aliphatic top coat	45	—	
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, Qualideck Q 152 / Q 252 / Q 372	~100	—	ASTM D 4060
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, Qualideck Q 152 / Q 252 / Q 372	**24.9**	—	ASTM D 4060
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, Qualideck Q 152 / Q 252 / Q 522E	46.2	—	ASTM D 4060
Taber abrasion resistance, mgms; CS-17 Wheel, 1,000 g load, 1,000 cycles, Qualideck Q 152 / Q 252 / Q 582	50	—	ASTM D 4060

Test results are averages obtained under laboratory conditions. Variations can be expected.

MAXIMUM MACHINE LEVEL WITHOUT BREAKING

Qualideck® Traffic Bearing Membrane				
System	Medium Duty	Heavy Duty	Extra Heavy Duty	Extreme Duty
Primer Q 152	4 mils	4 mils	4 mils	4 mils
Membrane Q 252	25 mils	25 mils	25 mils	25 mils
Intermediate/Topcoat Q 372 (Aromatic) or Intermediate Q 522E (Aromatic)	*15 mils	15 mils/15 mils	25 mils/15 mils	30 mils/20 mils
UV Topcoat Q461 (Aliphatic)	*15 mils	15 mils	15 mils	20 mils
UV Topcoat Q582 (Aliphatic)	*15 mils	15 mils	15 mils	20 mils
Sand Aggregate	10-15lbs /100SF/Coat	10-15lbs /100SF/Coat	10-15lbs /100SF/Coat	10-15lbs /100SF/Coat

*NOTE: Use UV Q582 or Q461 for full exposure or Q 372 or Q 522E for non sun exposure

APPLICATION GUIDE

Advanced Polymer Technology Corporation (APT) has prepared this application guide to assist applicators in the use of Qualipur Products for Qualideck® Systems. Any references to consumptions (coverage rate, etc.) are approximate values and will vary with concrete surface, texture, waste, etc. Before commencing any work, the applicator must become familiar with all product installation procedures.

MIXING OF MATERIALS

Qualipur products come pre-proportioned. All color components must be premixed for color distribution. Pour the jug component into the center of the pail component and mix thoroughly for approximately two (2) minutes. Then scrape down the sides of the pail and continue mixing for one (1) additional minute. Materials should be mixed with a jiffy paddle at a low speed (400-600 rpm). After mixing, material should be consistent in color.

POT LIFE

The pot life of Qualipur products is normally set at a temperature of 68ºF. Pot life will vary with temperature and humidity change.

- Qualipur 152 40–60 min
- Qualipur 252 20–30 min
- Qualipur 372 35–55 min
- Qualipur 461 will vary (1K Solvent)
- Qualipur 522E 40–60 min
- Qualipur 582 30-50 min

POURING MATERIALS

When pouring materials out of the pail, use only the material which flows naturally. Do not scrape the side or bottom of the pail. Also, do not invert pails on substrate and allow to fully drain as the residual material is often incompletely mixed and may result in incomplete cure.

CONCRETE SLAB RESTORATION

All cracks shall be identified, filled with a polyurethane sealant, and receive a detailed membrane coat of Qualipur 252 at a minimum of 20 mils dry film thickness, 6 in. wide, centered over the crack.

All spalls, delamination, potholes, scaling, pop-outs, and other defects shall be identified and repaired, using proven methods and materials to achieve a level substrate. Please note that any surface irregularities that may still remain could reflect through the cured topcoat.

SURFACE PREPARATION

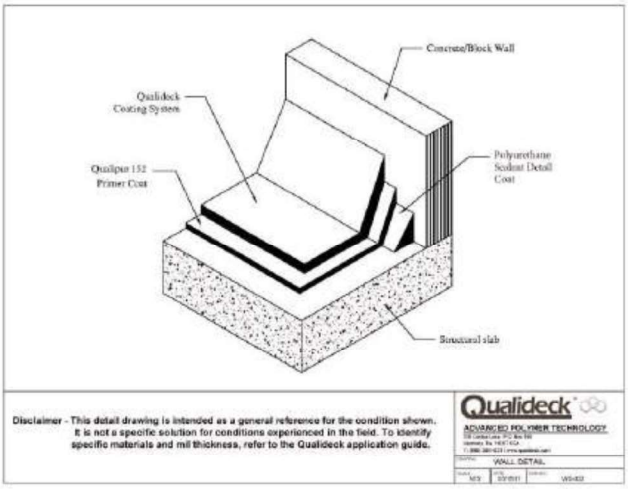
All concrete surfaces shall be air dried and checked for moisture (no more than 3 lbs., per 1,000sf, during 24 hour period) before installing Qualideck® traffic coating. Test for moisture using Mat Test, ASTM D4263.

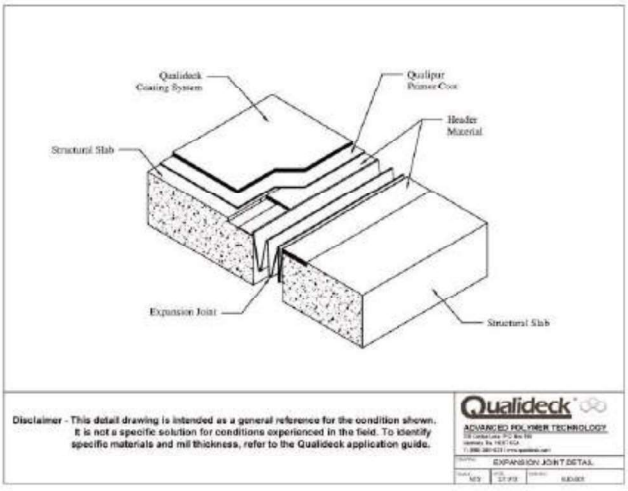
The substrate shall be CLEAN and DRY before primer (152) is applied. The substrate surface shall be inspected and made sure to be free of grease, oil, dust, dirt and other foreign matter, before primer coating is applied.

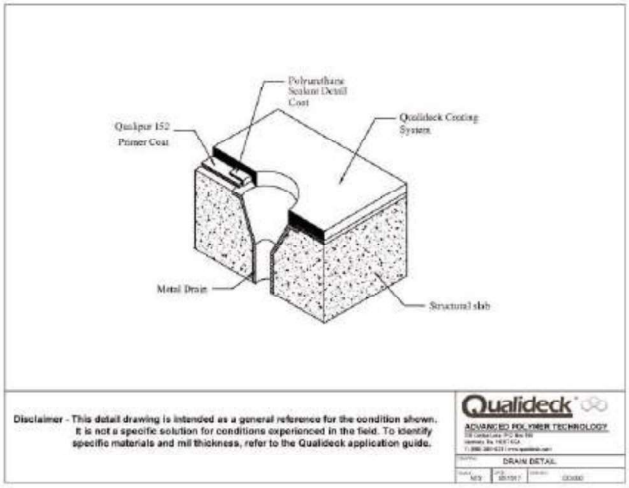
Prepare concrete surfaces by shot-blast method to achieve a proper profile, and confirm that the profile meets ICRI's (International Concrete Repair Institute) guidelines. Manufacturer recommends application of primer as soon as possible after the shot blasting operation, but no later than 72 hours, to ensure proper substrate conditions. The applicator is responsible for maintaining a clean substrate during this period. The prepared surface shall be in accordance with manufacturer's installation recommendations.

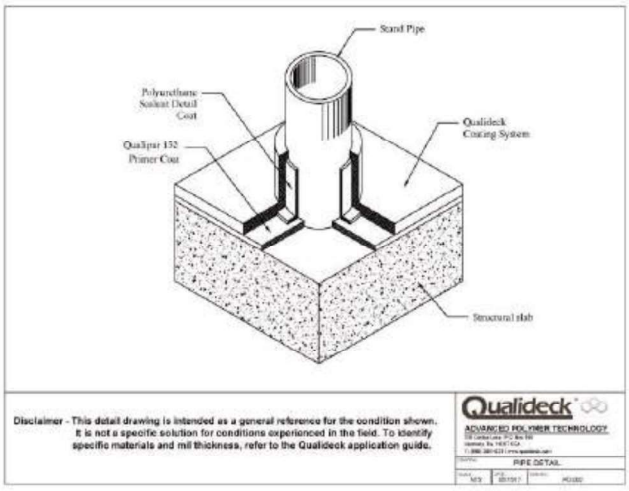
DETAIL PREPARATIONS

SYSTEM TERMINATION – Cut or rout a ¼ in. wide by ¼ in. deep maximum slot in the slab at the designated termination line. Mask off the termination edge of the slot. Apply coatings, leaving sufficient thickness to key in the top coat. Allow the top coat to remain level with the substrate at the termination edge.



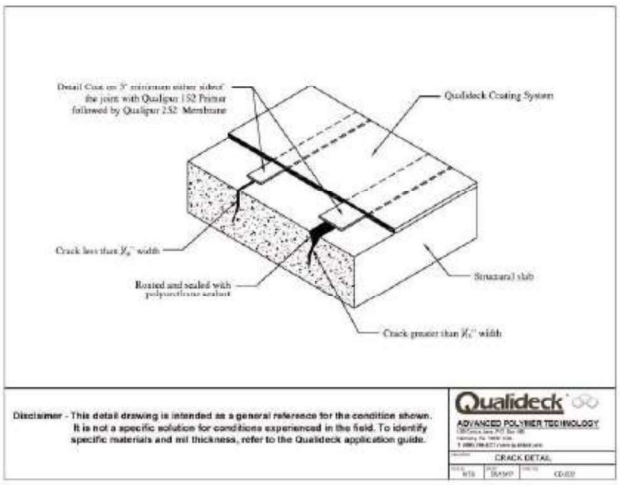






MOVING AND NON-MOVING CRACKS (<1/16 IN) – Apply the mixed Qualipur 152 primer at a 4 to 6 wet mil thickness a minimum of 3 in. wide on both sides of the joint or crack. Allow the primer to cure, typically 4 to 6 hours. Apply the mixed Qualipur 252 detail coat at 25-30 wet mil thickness taking care to ensure both filling and over lapping the crack 3 in. on each side. Tool to a feather-edge. Continue with surface work when detail coat becomes tack-free, typically 3 to 4 hours and not longer than 24 hours.

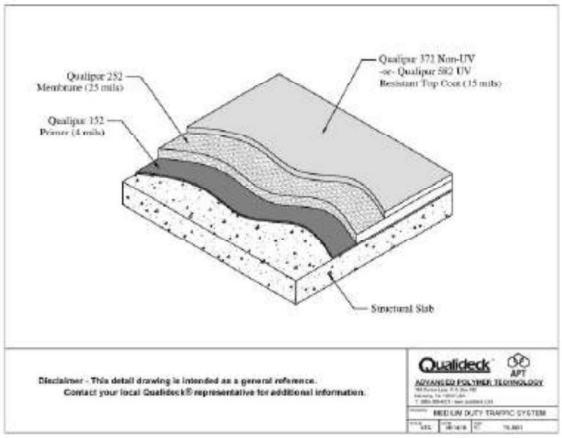
MOVING AND NON- MOVING CRACKS (>1/16 IN) – Cut or rout out cracks to a minimum ¼ in. wide by ½ in. deep. Apply the mixed Qualipur 152 primer at 4 to 6 wet mil thickness a minimum of 3 in. wide on both sides of the crack. Allow the primer to cure, typically 4 to 6 hours. Fill routed crack with a polyurethane sealant and apply mixed Qualipur 252 detail coat over the crack and overlapping the crack 3 in. on either side at 25-30 wet mil thickness and feather edge. After the repair becomes tack-free, typically 3 to 4 hours and not longer than 24 hours, continue surfacing work.



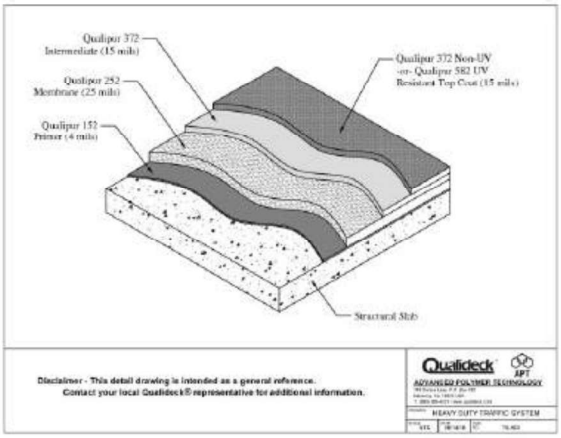
The Qualideck® coating system shall be flash coved at the perimeter walls and columns.

APPLICATION OF SYSTEMS

MEDIUM DUTY TRAFFIC SYSTEM



HEAVY DUTY TRAFFIC SYSTEM



MEDIUM DUTY TRAFFIC SYSTEM

1) PRIMER COATING - The prepared substrate will receive Qualipur 152 primer, at 4 mils, using high quality rollers, flat squeegees, or airless spray units. Allow the material (152) to completely saturate into the concrete substrate while removing any excess and applying said excess to other unprimed areas and repeat the procedure until the area is completely primed. Allow the Qualipur 152 primer 4 to 6 hours to cure at 68°F (but not longer than 24 hours). .
2) MEMBRANE COAT - After the primer (152) and any detail applications have cured to a tack-free state but no longer than 24 hours, apply Qualipur 252 membrane coating evenly, at 25 mils, using a notched trowel or squeegee and backroll with a high quality roller to create a consistent appearance. Take care to achieve recommended coverage rates at specified mil thickness as required by the end user or specifier. PLEASE
3) TOP COATINGS - After the membrane coat has cured, but no longer than 24 hours, apply the specified Qualipur topcoat (372 non-UV, 461 UV, or 582 UV resistant) evenly, at 15 mils, using a notched trowel or squeegee. Apply a uniform broadcast of sand (angular), flint (angular), or aluminum oxide (angular) into the wet top coat and backroll to fully encapsulate the sand aggregate. See chart contained within this guide for additional details.

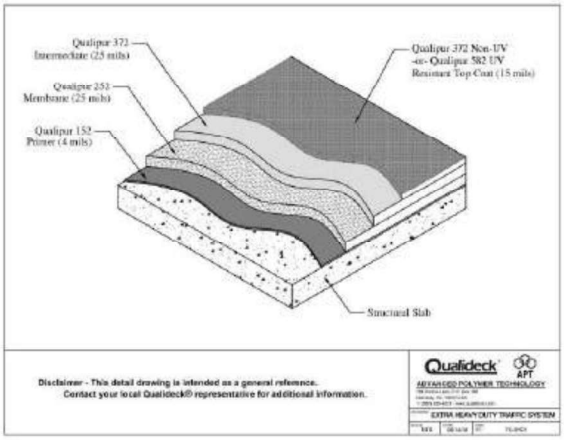
   PLEASE NOTE: NEVER SAND TO EXCESS QUALIPUR 461.

HEAVY DUTY TRAFFIC SYSTEM

1) PRIMER COATING - The prepared substrate will receive Qualipur 152 primer, at 4 mils, using high quality rollers, flat squeegees, or airless spray units. Allow the material (152) to completely saturate into the concrete substrate while removing any excess and applying said excess to other unprimed areas and repeat the procedure until the area is completely primed. Allow the Qualipur 152 primer 4 to 6 hours to cure at 68°F (but not longer than 24 hours).
2) MEMBRANE COAT - After the primer (152) and any detail applications have cured to a tack-free state but no longer than 24 hours, apply Qualipur 252 membrane coating evenly, at 25 mils, using a notched trowel or squeegee and backroll with a high quality roller to create a consistent appearance. Take care to achieve recommended coverage rates at specified mil thickness as required by the end user or specifier. PLEASE
3) INTERMEDIATE COATING - After the membrane coat (252) has cured but no longer than 24 hours, apply the Qualipur 372 polyurethane intermediate coating or Qualipur 522E epoxy intermediate coating evenly, at 15 mils, using a notched trowel or squeegee. Backroll to achieve a consistent surface. Take care to apply the specified mil thickness per the end user's / specifier's requirements. The intermediate coat can be seeded and backrolled, or sanded to excess, as required per the written specification. See chart included in this guide for further details.
4) TOP COATINGS - After the intermediate coat has cured, but no longer than 24 hours, apply the specified Qualipur top coat (372 non-UV, 461 UV, or 582 UV) evenly, at 15 mils, using a notched trowel or squeegee. Apply a uniform broadcast of sand (angular), flint (angular), or aluminum oxide (angular) into the wet top coat and backroll to fully encapsulate the sand aggregate. See chart contained within this guide for additional details.

   PLEASE NOTE: NEVER SAND TO EXCESS QUALIPUR 461

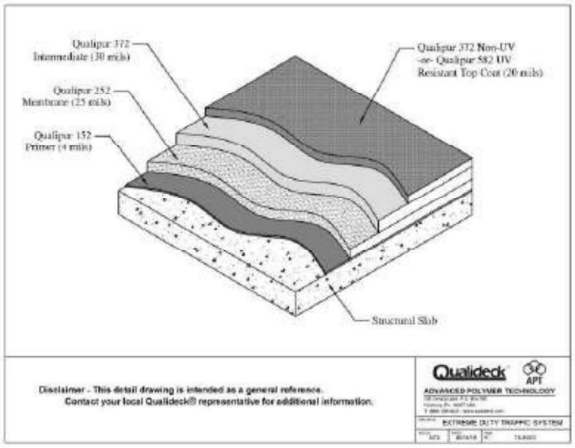
EXTRA HEAVY DUTY TRAFFIC SYSTEM



EXTRA HEAVY DUTY TRAFFIC SYSTEM

1) PRIMER COATING - The prepared substrate will receive Qualipur 152 primer, at 4 mils, using high quality rollers, flat squeegees, or airless spray units. Allow the material (152) to completely saturate into the concrete substrate while removing any excess and applying said excess to other unprimed areas and repeat the procedure until the area is completely primed. Allow the Qualipur 152 primer 4 to 6 hours to cure at 68°F (but not longer than 24 hours).
2) MEMBRANE COAT - After the primer (152) and any detail applications have cured to a tack-free state but no longer than 24 hours, apply Qualipur 252 membrane coating evenly, at 25 mils, using a notched trowel or squeegee and backroll with a high quality roller to create a consistent appearance. Take care to achieve recommended coverage rates at specified mil thickness as required by the end user or specifier. PLEASE
3) INTERMEDIATE COATING - After the membrane coat (252) has cured but no longer than 24 hours, apply the Qualipur 372 polyurethane intermediate coating or Qualipur 522E epoxy intermediate evenly at 25 mils, using a notched trowel or squeegee. Backroll to achieve a consistent surface. Take care to apply the specified mil thickness per the end user's / specifier's requirements. The intermediate coat can be seeded and backrolled, or sanded to excess, as required per the written specification. See chart included in this guide for further details.
4) TOP COATINGS - After the intermediate coat has cured, but no longer than 24 hours, apply the specified Qualipur topcoat (372 non-UV, 461 UV, or 582 UV resistant) evenly, at 15 mils, using a notched trowel or squeegee. Apply a uniform broadcast of sand (angular), flint (angular), or aluminum oxide (angular) into the wet top coat and backroll to fully encapsulate the sand aggregate. See chart contained within this guide for additional details.
   PLEASE NOTE: NEVER SAND TO EXCESS QUALIPUR 461.

EXTREME DUTY TRAFFIC SYSTEM



EXTREME DUTY TRAFFIC SYSTEM

1) PRIMER COATING - The prepared substrate will receive Qualipur 152 primer, at 4 mils, using high quality rollers, flat squeegees, or airless spray units. Allow the material (152) to completely saturate into the concrete substrate while removing any excess and applying said excess to other unprimed areas and repeat the procedure until the area is completely primed. Allow the Qualipur 152 primer 4 to 6 hours to cure at 68°F (but not longer than 24 hours).
2) MEMBRANE COAT - After the primer (152) and any detail applications have cured to a tack-free state but no longer than 24 hours, apply Qualipur 252 membrane coating evenly, at 25 mils, using a notched trowel or squeegee and backroll with a high quality roller to create a consistent appearance. Take care to achieve recommended coverage rates at specified mil thickness as required by the end user or specifier. PLEASE
3) INTERMEDIATE COATING - After the membrane coat (252) has cured but no longer than 24 hours, apply the Qualipur 372 polyurethane intermediate coating or Qualipur 522E epoxy intermediate coating evenly at 30 mils, using a notched trowel or squeegee. Backroll to achieve a consistent surface. Take care to apply the specified mil thickness per the end user's / specifier's requirements. The intermediate coat can be seeded and backrolled, or sanded to excess, as required per the written specification. See chart included in this guide for further details.
4) TOP COATINGS - After the intermediate coat has cured, but no longer than 24 hours; apply the specified Qualipur topcoat (372 non-UV, 461 UV, or 582 UV resistant) evenly, at 20 mils, using a notched trowel or squeegee. Apply a uniform broadcast of sand (angular), flint (angular), or aluminum oxide (angular) into the wet top coat and backroll to fully encapsulate the sand aggregate. See chart contained within this guide for additional details.
   PLEASE NOTE: NEVER SAND TO EXCESS QUALIPUR 461.

LIMITATIONS

A. Do not apply over damp or wet substrates
B. Do not apply to surfaces during the out-gasing of vapor
C. Minimum application and curing temperature 40° F (4° C)
D. Maximum substrate temperature 120° F (50° C)
E. Substrate temperature must be a minimum of 4° F above the dew point
F. Do not use on sandwich or split slabs with a buried membrane, on slabs or un-vented metal pan, or on epoxy resin bonded patches or overlays
G. The systems are not intended for tire chain or metal studded tire traffic, and should not come in contact with a steel tipped snow removal plow blade (snow removal blade must be equipped with a rubber type plow blade and rubber skid pads)

HEALTH & SAFETY INFORMATION

Consult the Safety Data Sheet (SDS) for complete information.

MAINTENANCE

Consult the Qualideck ® Maintenance Manual for more information. Or, for the most up-to-date information, please reference our website at www.qualideck.com .

WARRANTY

Advanced Polymer Technology (APT) warrants its products to be free of manufacturing defects and to meet the published physical properties when applied, cured, and tested in accordance with ASTM and APT standards. THIS WARRANTY IS IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. NEITHER SELLER NOR SUPPLIER SHALL BE LIABLE FOR ANY LOSS OR DAMAGE EITHER DIRECT, INCIDENTATL OR CONSEQUENTIAL REGARDLESS OF LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE, MERCHANTABILITY AND/OR STRICT LIABILITY.
Seller's and suppliers obligation shall be to replace such quantity of product proven to be defective, Before using, user shall determine suitability of product for his intended use and user assumes all risk in connection therewith.

COVERAGES

Actual coverage rates are dependent upon a variety of factors relative to the field application. The installer must assess the conditions prior to ordering material. With 100% solids material one (1) wet mil will equal one (1) dry mil. For those materials containing solvents, the dry mil yield will be proportionately reduced by the percentage of solvents. Generally, one (1) gallon of 100% solids material will yield 1600 square feet at one (1) mil thickness. But allowances must be made for waste in mixing and pouring as well as field conditions, such as concrete surface/ rough texture, etc.

Consumption Chart
100% Solids, Fast Cure, Low VOC, 2-Component

Product	Type	Dry Mils	SF/Gal	kg/m²
Qualipur 152	Primer	4	300	0.150
Qualipur 172 MVB Epoxy	Epoxy MVB	18	90	0.507
Qualipur 552E Epoxy	Primer	4	375	0.123
	Intermedite/Top	15	100	0.461
Over sand loaded		15	64	0.720
Qualipur 252	Membrane	25	64	0.650
Qualipur 372 Aromatic	Intermediate/Top	15	107	0.564
		20	80	0.755
		25	64	0.943
		30	50	1.208
Over sand loaded		15	64	0.943
Qualipur 582 Aliphatic	Top	15	107	0.564
Over sand loaded		20	80	0.755
Qualipur 461 Aliphatic	Top	15	89	0.490
		20	67	0.652
Over sand loaded		15	70	0.624

Rev 6 WB 05.08.18

ADVANCED POLYMER TECHNOLOGY CORP.
QUALIDECK INDUSTRIAL & TRAFFIC COATINGS

109 Conica Lane, Harmony PA 16037
www.advpolytech.com www.qualideck.com

Customer Service (724) 452-1330

MAINTENANCE MANUAL

GENERAL

1. Qualideck® coating systems provide long-lasting, textured, monolithic coating systems that are designed for vehicular traffic, industrial flooring, pedestrian walkways, balconies and sports stadium use.
2. Maintenance of Qualideck® coating systems must be performed at regular intervals to assure that the coating systems continue to function for their intended use.
3. Suggested maintenance procedures should include:

A. Periodic cleaning
B. Regular physical inspections
C. Ice control and snow removal
D. Structural repairs
E. Coating repairs

CLEANING OF QUALIDECK®

1. The intended use of the Qualideck® coating system will cause the cleaning frequency to vary. Our recommendation for cleaning is as follows:

A. Use equipment similar to a Tennant Sweeper or pressure washer over entire deck at least once every twelve (12) months. At areas such as ticket spitters, pay booths, ramps and exits, scrub oil build up and other contaminants from deck with a non-sudsing type detergent and water.

B. Hose down entire deck with water to remove residue and inspect deck for holes, cuts and ruptures of any kind in the deck coating system at least once every twelve (12) months. Report any damage to an Advanced Polymer Technology licensed applicator for immediate attention and repair recommendations.

C. Power scrub entire deck with a non-sudsing, non-film forming, non-abrasive cleaner and water and rinse thoroughly with clean potable water every twelve (12) months. Make an inspection for coating damage and report any damage to an Advanced Polymer Technology licensed applicator for immediate attention and repair recommendations.

PHYSICAL INSPECTIONS

1. Qualideck® coatings systems are subject to physical damage, as a result of abrasive conditions, general use or abuse, and/or damage from structural issues. Some common causes of damage to the system include but not limited to:

A. Traffic allowed on the coating system before recommended cure times are achieved.

B. Excessive tire spinning can cause damage.

C. Driving on flat tires allowing the tire rims to cut into the coating system.

D. Driving over curbs and rims cutting into coating.

E. Dragging sharp, heavy objects across the coating.

F. Improper snow removal equipment and/or methods of removal.

G. Excessive structural movement causing cracking.

H. Excessive loads on the concrete deck (snow, sand, construction materials, etc), causing structural damage and movement.

2. Annual (once per year) inspections should be conducted to identify and define areas of excessive wear or physical damage to the system.

A. Inspect the coating system for holes, cuts, gouges, or ruptures.

B. Inspect the sealant joints for adhesion and integrity.

C. Inspect for excessive oil or other contaminant build up on coatings.

D. Inspect drains or scuppers to ensure proper outflow and drainage.

E. Inspect at intersections of ramps and flats for excessive wear.

F. Inspect all high traffic areas.

G. Where applicable, inspect the underside of structure for evidence of leaks.

H. Note all defects, locations, and report to all concerned parties.

ICE CONTROL & SNOW REMOVAL

1. Ice buildup should be controlled and removed. The use of rock salt is recommended.

2. Snow removal equipment must have rubber tires.

3. Snow blades must have rubber shoe, rubber tips, or small skies to prevent ruptures in the deck coating system. The use of metal blades without protection is not recommended and could void warranty.

4. Snow blowers with rubber blades and snow brooms are recommended, as opposed to large snow removal equipment.

Note: Large piles of snow can significantly load the structural deck surface beyond its design load capacity resulting in significant structural cracks and serious structural damage. Large piles of snow should be removed immediately.

STRUCTURAL REPAIRS

1. All structural repairs should be investigated by a qualified structural engineering firm, specializing in parking structures, and repaired according to their recommendations.

COATING REPAIRS

1. For top coating and / or wear surface repairs, please contact Advanced Polymer Technology and / or a licensed APT applicator to evaluate existing conditions and determine necessary repairs.

2. Emergency minor repairs may be made by the owner's maintenance personnel however contact must be made to an APT licensed applicator. All products and methods must be approved by APT and the appropriate APT applicator to protect manufacturers maintenance and material / workmanship warranty agreements.

APT

APT AMERICAS
World Headquarters
109 Conica Lane,
PO Box 160
Harmony, PA 16037 USA
Tel. (724) 452-1330
Fax. (724) 452-1703

APT LATIN AMERICA
6810 North State Rd 7
Coconut Creek, FL 33073
Tel. (561) 716-7742
(561) 716-7743
Fax. (724) 452-1703

APT ASIA PACIFIC
Factory 3 Dunlopillo Drive
Dandenong Victoria 3175 Australia
Tel. +61 3 8792 8000
Fax. +61 3 8792 8001

ISO 9001
ISO 14001
APT – an ISO 9001 & 14001 certified company

www.Qualideck.com

REV 1 WB 08/10/20

Qualipur® 152

1. General Description

Qualipur 152 is a 2-component, solvent-free, low viscosity polyurethane primer. It cures using chemical cross-linking to produce a thin mil primer with excellent abrasion characteristics for long term wear protection. Qualipur 152 has good resistance to many chemical compounds. Superior adhesion properties of Qualipur 152 make it an ideal primer for many substrates.

Basic Uses: Being a solvent-free product, Qualipur 152 can be used to prime both interior and exterior substrates without noxious odor.

2. Safety Guidelines

Always wear the recommended personal protective equipment. Avoid contact with eyes, skin, and clothing. Adequate ventilation is required during the application process.

Do not expose container to open flame, excessive heat, or direct sunlight.

3. Storage and Packaging

Qualipur 152 should be stored in clean, cool, dry area in original unopened pail. Qualipur 152 has a shelf life of 1 year.

Packaging: 3 gallon unit (12.3 kg unit)

4. Coverage

For a standard 4 mil application the consumption rate of Qualipur 152 is 300 ft^2/gal (0.0033 gal/ft^2 or 0.1451 kg/m^2).

5. Installation Guidelines

Surface Preparation:

See Qualideck Installation Guideline

Surfaces receiving an application of Qualipur 152 must be clean, sound, dry, and free of oils and other bond inhibiting contaminants. Prior to applying Qualipur 152 to the concrete, use of mechanical methods such as shot blasting or sandblasting are recommended to produce a clean and lightly textured surface. Primed surfaces should be coated within 24 hours. Concrete shall be tested for moisture, ASTM D4263 Moisture Test (Mat Test).

Features and Benefits

- ✓ Low VOC
- ✓ No flammability concern
- ✓ Solvent-free
- ✓ Quick cure time
- ✓ Primer on-grade
- ✓ Easy application
- ✓ Optimal penetration
- ✓ Outstanding bond strength

Mixing:

Empty the entire contents of component "B" into component "A". Mixing is accomplished by using a jiffy paddle and low speed drill (400 to 600 rpm) so as not to incorporate excessive air into the product. Mix components for 2 minutes in provided pail. Scrape down sides of pail and mix for an additional 1.5 minutes before proceeding with application.

Application:

On Concrete – to apply as a primer, use a high quality roller, brush, squeegee, or airless spray unit and apply a uniform film of 4 wet mils. Allow to cure for 4 to 6 hours before proceeding with application.

On Asphalt – to apply as a primer, use a high quality roller, brush, squeegee, or airless spray unit and apply a uniform film of 7 wet mils. Allow the primer to cure for 3 to 4 hours before proceeding with application.

6. Limitations

- Minimum application temperature is 40°F and rising.
- Do not apply over damp or wet substrates.
- Do not apply to surfaces with active moisture vapor transmission.
- Conduct an adhesion test prior to use on asphalt substrates.

7. Technical Data

Results based on temperature of 68° and 50% Humidity

VOC		7.1 g/L*
Solid Content		100%
Renewable Content		44.74%
Viscosity	ASTM D2196	600 – 1000 cPs
Pot Life	ASTM C603	40 – 60 Minutes
Tack-Free Time		4 – 6 Hours
Cure Time – Foot Traffic	ASTM C920	24 Hours
- Final Cure		7 Days
Adhesion to Concrete	ASTM D7234	100% Substrate Failure
Moisture Vapor Transmission	ASTM E 96	Avg. 0.214 grains / hour ft²
Tear Resistance	ASTM D 1004	Avg. 212 + Lbs/in² depending on the system
Flash Point	ASTM D93	Non Flammable

*Based on standard formula calculation

Above figures are guide values and should not be used as a base for specifications

Consult the Safety Data Sheet (SDS) for more details.

For complete and latest warranty and product information, please visit www.advpolytech.com

Qualipur® 252

1. General Description

Qualipur 252 is a 2-component, low VOC, low/no odor, polyurethane membrane. It cures using chemical cross-linking to form a dynamically flexible waterproofing membrane for extreme crack-bridging applications. Qualipur 252 has good chemical resistance and outstanding adhesion properties making it the ideal membrane for waterproof coating systems. High chemical abrasion and thermal shock resistant systems can be obtained using the Qualipur 252 as a base coat/membrane.

Basic Uses: A crack-bridging base and waterproofing membrane.

Features and Benefits

- ✓ Low VOC
- ✓ Low/no odor
- ✓ Bridges dynamically moving cracks
- ✓ Quick cure time
- ✓ Excellent elongation and tensile strength properties
- ✓ Flexible in low temperature ranges

2. Safety Guidelines

Always wear the recommended personal protective equipment. Avoid contact with eyes, skin, and clothing. Adequate ventilation is required during the application process.

Do not expose container to open flame, excessive heat, or direct sunlight.

3. Storage and Packaging

Qualipur 252 should be stored in cool, clean, dry area in original unopened pail. Qualipur 252 has a shelf life of 1 year.

Packaging: 5 gallon unit (19.3 kg unit)

4. Coverage

For reference 1 mil of Qualipur 252 has a consumption rate of 1493 ft^2/gal (0.00067 gal/ft^2 or 0.02781 kg/m^2). Typical membrane application is 20/25 mils and has a consumption rate of 64 sqft/gal (0.0134 gal/ft^2 or 0.5562 kg/m^2)/80 sqft/gal (0.0168 gal/ft^2 or 06953 kg/m^2)

5. Installation Guidelines

Surface Preparation:

See Qualideck Installation Guide

Qualipur 252 on primed concrete surfaces that have received the recommended surface preparation (such as sandblasting and shot blasting are recommended to produce a clean textured surface).

Mixing:

Pre-mix the color component. Then, empty the contents of component "A" into component "B". Mixing is accomplished by using a jiffy paddle and low speed drill (400 to 600 rpm). Take care not to incorporate excessive air into the product. Mix components for 2 minutes in provided pail. Scrape down sides of pail and mix for an additional 1.5 minutes before proceeding with application.

Application:

See Qualideck Installation Guide.

6. Limitations

- Minimum application temperature is 40°F and rising.
- Do not apply over damp or wet substrates.
- Do not apply to surfaces with active moisture vapor transmission.
- Conduct an adhesion test prior to use on asphalt substrates.

7. Technical Data

Results based on temperature of 68°F and 50% Humidity

VOC		7.7 g/L*
Solid Content		100%
Viscosity	ASTM D2196	1700-2700 cPs
Pot Life	ASTM D603	20-30 Minutes
Hardness	ASTM D2240	Shore A 70-80
Cure Time – Before Overcoat	ASTM C920	3-4 Hours
- Final Cure		24 Hours
Abrasion	ASTM D4060	9 mg loss
Tear Resistance	ASTM D1004	160 pli
Elongation	ASTM D412	1102.3% **
Tensile Strength	ASTM D412	1890.2 PSI **
Adhesion to Concrete	ASTM D7234	100% Substrate Failure
Flash Point	ASTM D93	Non Flammable

**based on standard formula calculation*
***Maximum machine travel without breaking*

Above figures are guide values and should not be used as a base for specifications

Consult the Safety Data Sheet (SDS) for more details.

For complete and latest warranty and product information, please visit www.advpolytech.com

Qualipur® 372

1. General Description

Qualipur 372 is a 2-component, low VOC, low/no odor, medium viscosity, polyurethane coating. It cures using chemical cross-linking to form a hard elastic, abrasion-resistant coating and binder for urethane mortars and broadcast systems. Qualipur 372 has good chemical resistance and outstanding adhesion properties.

Basic Uses: A highly abrasion-resistant coating and binder for flooring systems.

Colors: A gloss finish product available in 5 standard colors: Light Grey, Dark Grey, Charcoal, Tan, and Black. Special colors are available upon request.

Features and Benefits

- ✓ High abrasion and cut/tear resistant
- ✓ Able to cure in low temperature ranges
- ✓ Wide range of system options and textures
- ✓ Versatile range of potential substrates
- ✓ Variety of color options
- ✓ Low VOC

2. Safety Guidelines

Always wear the recommended personal protective equipment. Avoid contact with eyes, skin, and clothing. Adequate ventilation is required during the application process.

Do not expose container to open flame, excessive heat, or direct sunlight.

3. Storage and Packaging

Qualipur 372 should be stored in clean, cool, dry area in original unopened pail. Qualipur 372 has a shelf life of 1 year.

Packaging: 4.5 gallon unit (25.2 kg unit)

4. Coverage

For reference 1 mil of Qualipur 372 has a consumption rate of 1600 ft^2/gal (0.00063 gal/ft^2 or 0.0406 kg/m^2). Typical Wearcoat/Topcoat application is 15/30 mils and has a consumption rate of 107 sqft/gal (0.0095 gal/ft^2 or 0.609 kg/m^2)/53 sqft/gal (0.189 gal/ft^2 or 1.218 kg/m^2)

5. Installation Guidelines

Surface Preparation:

See Qualideck Application Guide

A surface receiving an application of Qualipur 372 must be clean, sound, dry, and free of oils and all bond inhibiting compounds and contaminants. Apply Qualipur 372 on primed concrete or on Qualipur

urethane surfaces that have received the recommended surface preparation (sandblasting or shot blasting are recommended to produce a clean and lightly textured surface). When top coating a system, if the recommended recoat time is exceeded or if contamination of the substrate occurs, consult your sales representative.

Mixing:

Pre-mix the color component. Then, empty the contents of component "B" into component "A". Mixing is accomplished by using a jiffy paddle and low speed drill (400 to 600 rpm). Take care not to incorporate excessive air into the product. Mix components for 2 minutes in provided pail. Scrape down sides of pail and mix for additional 1.5 minutes before proceeding with application.

Application:

Top Coat Over System – Use a high quality roller, brush, or squeegee to apply a uniform film at the recommended rate. Sand, 12-20 mesh (angular) or 16-30 mesh (angular), flint (angular), or aluminum oxide (angular) can be applied by backrolling after application of the coating.

Consult Application Guide for further information.

6. Limitations

- Minimum application temperature is 40°F and rising.
- Do not apply over damp or wet substrates.
- Do not apply to surfaces with active moisture vapor transmission.

7. Technical Data

Results based on temperature of 68°F and 50% Humidity

VOC		20.5 g/L*
Solids Content		100%
Renewable Content		23.56%
Viscosity	ASTM D2196	1600 – 2400 cPs
Pot Life	ASTM C603	35-55 Minutes
Cure Time – Tack Free		3 – 5 Hours
- Foot Traffic	ASTM C920	24 Hours
- Final Cure		4 Weeks
Elongation	ASTM D412	42.9%
Tensile Strength	ASTM D412	4200 PSI
Hardness	ASTM D2240	69 D scale
Abrasion Resistance	ASTM D4060	172.1 mg loss
Ozone Resistance	ASTM D1149	No visible cracking occurred
Skid Resistance Dry		Pass
Skid Resistance Wet		Pass
Thermal Emittance (Grey)	ASTM C1371	0.86
Solar Reflectance (Grey)	ASTM C1549	16.7%
Solar Reflective Index	ASTM E1980	13
Solvent and Fuel Resistance	ASTM D2792	No negative observation

Qualipur® 372

Flash Point	ASTM D93	Non Flammable

*based on standard formula calculation

Chemical Resistance Chart

Chemical	Qualipur 372	Qualipur 461	Qualipur 512	Qualipur 522	Qualipur 552E	Qualipur 582
Acetic Acid 10%	-	-	+	+	-	+
Acetic Acid 50%	-	-	-	+	-	-
Acetone	+	+	+	+	+	-
Anti-Freeze	+	+	+	+	+	+
Bleach	-	+	+	+	+	+
Brake Fluid	-	-	-	-	-	-
Caustic Soda	+	+	-	+	+	+
Gasoline	+	+	+	+	+	-
Hydraulic Fluid	+	+	+	+	+	+
Hydrochloric Acid 10%	-	-	-	+	+	+
Hydrochloric Acid 31%	-	-	-	-	-	-
Jet Fuel	+	+	+	+	+	+
Methanol	+	+	+	+	-	-
Mineral Spirits	+	+	+	+	+	+
Motor Oil	-	+	-	+	+	+
Phosphoric Acid 50%	+	-	-	+	-	-
Phosphoric Acid 70%	-	-	-	-	-	-
Potassium Hydroxide 50%	-	-	-	-	+	+
Simple Green	+	+	+	+	+	+
Skydrol	-	-	-	+	-	-
Sodium Hydroxide 50%	+	+	+	+	+	+
Sulfuric Acid 25%	-	-	-	-	-	-
Sulfuric Acid 50%	-	-	-	-	-	-

(-) --> Visual Defects Observed

(+) --> No Visual Defects Observed

Above figures are guide values and should not be used as a base for specifications

Consult the Safety Data Sheet (SDS) for more details.

For complete and latest warranty and product information, please visit www.advpolytech.com

Qualipur® 582

1. General Description

Qualipur 582 is a 2-component, low VOC, low/no odor, medium viscosity, polyurethane coating. It cures using chemical cross-linking to form a hard elastic, UV resistant, abrasion-resistant coating. Qualipur 582 has good chemical resistance and outstanding adhesion properties.

Basic Uses: A highly abrasion-resistant coating.

Colors: A gloss finish product available in 5 standard colors: Light Grey, Dark Grey, Charcoal, Tan, and Black. Special colors are available upon request.

Features and Benefits

- ✓ High abrasion and cut/tear resistant
- ✓ Excellent UV stability
- ✓ Versatile range of potential substrates
- ✓ Variety of color options
- ✓ Low VOC

2. Safety Guidelines

Always wear the recommended personal protective equipment. Avoid contact with eyes, skin, and clothing. Adequate ventilation is required during the application process.

Do not expose container to open flame, excessive heat, or direct sunlight.

3. Storage and Packaging

Qualipur 582 should be stored in a clean, cool, dry area in original unopened pail. Qualipur 582 has a shelf life of 1 year.

Packaging: 5 gallon unit (28.00 kg unit)

4. Coverage

For reference 1 mil of Qualipur 582 has a consumption rate of 1600 ft^2/gal (0.00063 gal/ft^2 or 0.0406 kg/m^2). A typical application of 15 mils has a consumption rate of 107 sqft/gal (0.0095 gal/ft^2 or 0.609 kg/m^2).

5. Installation Guidelines

Surface Preparation:

See Qualideck Application Guide

Mixing:

Qualipur 582 is a 2-component polyurethane product; it requires mixing to ensure consistent curing and uniform color. Mixing is accomplished by premixing component "A" for 2-3 minutes. After premixing component "A", pour the contents of component "B" directly into component "A" and mix using a jiffy paddle and low speed drill (400 to 600 rpm). Take care not to incorporate excessive air into the product. Mix components for 2 minutes in provided pail. Scrape down sides of pail and mix for an additional 1.5 minutes before proceeding with application.

Application:

See Qualideck Application Guide

Do Not sand to excess the Qualipur 582 top coat - sand saturation shall be in the Qualipur 372 coat.

Consult Application Guide for further information.

6. Limitations

- Minimum application temperature is 4°C (40°F).
- Do not apply over damp or wet substrates.
- Do not apply to surfaces with active moisture vapor transmission.

7. Technical Data

Results based on temperature of 68°F and 50% Humidity

VOC		20.23 g/L*
Solids Content		98%
Renewable Content		22.58%
Viscosity	ASTM D2196	1600 – 2400 cPs
Pot Life	ASTM C603	30-50 Minutes
Cure Time – Tack Free		3 – 5 Hours
- Foot Traffic	ASTM C920	24 Hours
- Final Cure		4 Weeks
Elongation	ASTM D412	81%
Tensile Strength	ASTM D412	1500 PSI
Hardness	ASTM D2240	45 D scale
Skid Resistance Dry		Pass
Skid Resistance Wet		Pass
Abrasion Resistance	ASTM D4060	50 mg loss
Flash Point	ASTM D93	Non Flammable

*based on standard formula calculation

Qualipur® 582

Chemical Resistance Chart

Chemical	Qualipur 372	Qualipur 461	Qualipur 512	Qualipur 522	Qualipur 552E	Qualipur 582
Acetic Acid 10%	-	-	+	+	-	+
Acetic Acid 50%	-	-	-	+	-	-
Acetone	+	+	+	+	+	-
Anti-Freeze	+	+	+	+	+	+
Bleach	-	+	+	+	+	+
Brake Fluid	-	-	-	-	-	-
Caustic Soda	+	+	-	+	+	+
Gasoline	+	+	+	+	+	-
Hydraulic Fluid	+	+	+	+	+	+
Hydrochloric Acid 10%	-	-	-	+	+	+
Hydrochloric Acid 31%	-	-	-	-	-	-
Jet Fuel	+	+	+	+	+	+
Methanol	+	+	+	+	-	-
Mineral Spirits	+	+	+	+	+	+
Motor Oil	-	+	-	+	+	+
Phosphoric Acid 50%	+	-	-	+	-	-
Phosphoric Acid 70%	-	-	-	-	-	-
Potassium Hydroxide 50%	-	-	-	-	+	+
Simple Green	+	+	+	+	+	+
Skydrol	-	-	-	+	-	-
Sodium Hydroxide 50%	+	+	+	+	+	+
Sulfuric Acid 25%	-	-	-	-	-	-
Sulfuric Acid 50%	-	-	-	-	-	-

(-) --> Visual Defects Observed

(+) --> No Visual Defects Observed

Above figures are guide values and should not be used as a base for specifications

Consult the Safety Data Sheet (SDS) for more details.

For complete and latest warranty and product information, please visit www.advpolytech.com

Qualideck®

Advanced Polymer Technology
APT Worldwide - Always APT

LIMITED MATERIAL ~~& INSTALLATION~~ WARRANTY

DURATION: 5 Years

Project Site	
Name:	
Address:	
City:	
State:	
Date of Application:	
Applicator Name:	
Purchaser Name:	

PRODUCT(S): __ 152 __ 172 __ 252 __ 372 __ 461 __ 552E __ 582 (check all that apply)

This is to certify that the above named product has been applied to the area described in the Project Site above. This warranty makes no allowance for deviations or omissions from the information provided in the on-line application. Any misrepresentation or fraudulent statement in the application for Limited Warranty renders the warranty null and void.

Advanced Polymer Technology Corp. (APT) warrants Qualideck products (other than Qualideck products manufactured in accordance with any specifications provided by Owner) (the "Products"), supplied to owner per APT's invoice, shall be free from manufacturing defects for a period of five (5) years from the date of purchase (the "Warranty Period") (the "Warranty"). APT's responsibility and obligation under this Warranty shall become effective only upon payment in full for the Products furnished by APT for this project and APT's Qualideck Warranty Document Request Form is completed in its entirety. This Warranty applies exclusively to the Owner, and third parties will have no rights or benefits under this Warranty. This Warranty is non-assignable and non-transferable without the written consent of APT, provided, however, upon written notice to APT, Owner may transfer its rights under this Warranty to any lawful transferee of the Product provided that such transfer shall not in any manner diminish APT's rights or increase its obligations under the Warranty. This Warranty only covers the Product and no related items. Warranty claims arising from this Warranty can only be asserted during the Warranty Period.

LIMITATIONS AND EXCLUSIONS: APT shall have no obligation under this Warranty: (i) if Owner subjects materials to improper conditions (Refer to APT's Technical Data Sheets and Limitations and Exclusions); (ii) for Product failure caused by accidents, misuse, vandalism, improper installation or maintenance (Refer to APT's Maintenance Manual); (iii) for improper or insufficient design or engineering; (iv) for inadequate or flawed sub-base that is causing or contributing to material wear or abrasion; (v) if the surface is willfully or maliciously damaged; (vi) if the surface is subjected to unsuitable wear and tear; (vii) for normal wear and tear affecting the appearance ***(including fading, stains, discoloration, scratches, scrapes, scuffs, and the like)***; (viii) for any alteration or repair of the Products by a person or entity other than APT or its authorized third party vendors.

Concrete cracking exceeding 1/16 inch (.625 inch) caused by thermal or structural movement leading to a breach in the coating system is not covered by this warranty.

Owner and APT agree that APT's sole and exclusive obligation and Owner's sole and exclusive remedy under this Warranty shall be at APT's option to repair or replace the defective Products without charge to Owner, F.O.B. jobsite. Where the Products subjected to the Warranty are no longer being manufactured by APT, APT reserves the right to supply another type. ***Any claims under this Warranty shall be made in writing addressed to APT within thirty (30) days from the date of the alleged failure, including information as to the specific location and nature of the claimed failure. A representative of APT shall be given reasonable opportunity to inspect the alleged failure.***

APT expressly disclaims any and all other warranties, express or implied, including, but not limited to all warranties of merchantability, fitness for in particular purpose, and otherwise with respect thereto, including, but not limited to, any inaccuracy or ambiguity, or any results to be obtained there from.

In no event, shall APT be liable for any indirect, special, incidental, consequential, or punitive damages or other damages of any kind, with respect to the use of the products, or in any way related to this agreement, regardless of the form of action, (be it for breach of contract, warranty, negligence, strict liability, tort, or otherwise), including, but not limited to loss of use, claims or damages relating to personal injury, lost revenue, increased cost, down time costs or any other indirect or consequential damages.

It is further agreed and understood that the price stated for the Products is consideration for the limitation of APT's liability hereunder. The sales personnel of APT are not authorized to make warranties or representations, whether oral or written, about the Products described in this contract. The entire contract is embodied in this writing and no other warranties are given beyond those set forth in this written contract. This writing constitutes the final expression of the parties' agreement, and it is a complete and exclusive statement of the terms of that agreement and supersedes all prior agreements, warranties, or statements regarding the project. This Warranty cannot be amended, altered or modified in any way except in writing signed by an Officer of APT or a person whom his authority has been delegated in writing and the Installer. This Warranty and its surrounding provisions shall be governed by and construed in accordance with the laws of the State of Pennsylvania without regard to principles of conflicts of law. The parties hereto irrevocably: (a) agree that any suit, action, or other legal proceeding arising out of or related to this Warranty or the Products shall be brought in the United States District Court for the Western District of Pennsylvania or in any courts of the State of Pennsylvania sitting in Butler County, Pennsylvania; (b) consent to the jurisdiction of each such court in any suit action or proceeding; (c) waive any objection which they, or any of them, may have to the laying of venue of any such suit, action or proceeding in any of such courts; and, (d) agree that service of process by registered or certified mail, for Owner at the address listed in the APT Qualideck Warranty Document Request Form and for APT as noted in beneath APT's signature below, shall be good and sufficient service of process. In the event that any party institutes any legal suit, action or proceeding against the other party arising out of or related to this Warranty or the Products, the prevailing party in the suit, action or proceeding shall be entitled to receive in addition to all other damages to which it may be entitled, the costs incurred by such party in conducting the suit, action or proceeding, including actual attorney's fees and expenses and court costs.

Signed Date	Signed Date

Advanced Polymer Technology Corp.
109 Conica Lane
Harmony, PA 16037
Telephone (724) 452-1330 Fax (724) 452-1703