Submittal Review Response

Project Name:	***Hilo WWTP Rehabilitation and Replacement Project Phase 1***
Submittal No.:	***13206F-001.0***
Date:	***9/8/2025***

Client:	County of Hawai‘i	**Carollo Project No.:**	203975
Contractor:	Nan, Inc.		
Submittal Name:	Hydropneumatic Bladder Tank		
Reviewed By:	J. Ewing		

SUBMITTAL REVIEW		
Review is for general compliance with contract documents. No responsibility is assumed by Carollo for correctness of quantities, dimensions, and details. No deviation or variation is approved unless specifically addressed in these review comments. Refer to Section 01330 for additional requirements. The Contractor shall assume full responsibility for coordination with all other trades and deviations from contract requirements.		
Approved	☐	No Exceptions
	☐	Make Corrections Noted - See Comments
	☐	Make Corrections Noted - Confirm
Not Approved	☒	Correct and Resubmit
	☐	Rejected - See Remarks
Receipt Acknowledged	☐	Filed for Record
	☐	With Comments - Resubmit

Review Comments:

1. The use of a Wessels Co. tank similar to the one submitted is acceptable; however, further approval cannot be given until a complete submittal addressing all requirements specified in section13206F and on the drawings has been reviewed.
2. Note in 13206F 2.04 E that the tank’s main access shall be at least 24 inches in diameter.
3. Please explain the proposed 4-inch bottom connection including its purpose and capacity.

☐ High Priority

CONTRACTOR SUBMITTAL TRANSMITTAL FORM REV. A

Owner:	County of Hawaii		
Contractor:	Nan, Inc.	**Project No.:**	WW-4705R
Project Name:	Hilo WWTP Phase 1	**Submittal Number:**	13206F-001.0
Submittal Title:	Hydropneumatic Bladder Tank	☐ For Information Only	
TO:	County		
From:	Nan Inc.		

Specification No. and Subject of Submittal / Equipment Supplier			
Spec:	13206F	**Paragraph:**	1.03
Authored By:	Wessels, Co.	**Date Submitted:**	8/29/2025

Submittal Certification

Check Either (A) or (B):

☑ (A) We have verified that the equipment or material contained in this submittal meets all the requirements specified in the project manual or shown on the contract drawings with no exceptions.

☐ (B) We have verified that the equipment or material contained in this submittal meets all the requirements specified in the project manual or shown on the contract drawings except for the deviations listed.

Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements.

General Contractor's Reviewer's Signature: _____

Printed Name and Title: Mark McCarthy QC

In the event, Contractor believes the Submittal response does or will cause a change to the requirements of the Contract, Contractor shall immediately give written notice stating that Contractor considers the response to be a Change Order.

Firm:	**Signature:**	**Date Returned:**

PM/CM Office Use

Date Received GC to PM/CM:

Date Received PM/CM to Reviewer:

Date Received Reviewer to PM/CM:

Date Sent PM/CM to GC:

Nan, Inc

PROJECT: HILO WWTP REHABILITATION AND REPLACEMENT PROJECT - PHASE 1

JOB NO. WW-4705R

THIS SUBMITTAL HAS BEEN CHECKED BY THIS CONTRACTOR. IT IS CERTIFIED CORRECT, COMPLETE, AND IN COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ALL AFFECTED CONTRACTORS AND SUPPLIERS ARE AWARE OF, AND WILL INTEGRATE THIS SUBMITTAL (UPON APPROVAL) INTO THEIR OWN WORK.

DATE RECEIVED 8/29/2025
SPECIFICATION SECTION # 13206F
SPECIFICATION Hydropneumatic Bladder Tar
PARAGRAPH 1.03
DRAWING
SUBCONTRACTOR
SUPPLIER Dawson
MANUFACTURER Wessels

CERTIFIED BY CQCM or Designee : _____

SECTION 13206F

HYDROPNEUMATIC BLADDER TANK

PART 1 GENERAL

1.01 SUMMARY

A. Section includes:
   1. ASME-rated hydropneumatic bladder tank with removable bladder.

1.02 REFERENCES

A. American Society of Mechanical Engineers (ASME):
   1. Boiler and Pressure Vessel Code (BPVC).
      a. Section VIII-Rules for Construction of Pressure Vessels, Division 1.

B. NSF International (NSF):
   1. Standard 61 - Drinking Water System Components.

1.03 DELEGATED DESIGN

A. As specified in Section 01357 - Delegated Design Procedures.

B. Equipment anchoring and bracing to structures.

1.04 SUBMITTALS

A. Submit as specified in Section 01330 - Submittal Procedures and Section 01600 - Product Requirements.

✓ B. Product data:
   1. List of materials and coatings used with specifications and physical properties for each.
   2. Certification that materials in direct contact with potable water have current listing under NSF-61.
   3. Manufacturer's standard operations and maintenance information.

✓ C. Shop Drawings:
   1. Detailed drawings or manufacturer's literature to indicate compliance with the specified requirements.
   2. Dimensional drawings indicating vessel dimensions, wall thicknesses, and mounting, and anchorage requirements.
   3. Calculations: Copy of structural and seismic loading calculations for the support system sealed and signed by a Professional Structural Engineer licensed in the state where the project is located.

D. Delegated Design Submittals:
   1. Anchoring and bracing: Project-specific calculations with anchoring and bracing details based on support conditions and requirements to resist loads specified in Section 01850 - Design Criteria.
      a. To structures for tanks installed in structures designated as seismic design category C, D, E, or F.
      b. For tanks installed outdoors.
      c. For tanks installed indoors and having a height to diameter ratio greater than 1.0.Installation instructions.

E. Installation instructions.
   1. Manufacturer's installation instructions.
   2. Equipment anchor setting template.
   3. Complete details for installation of the equipment including rigging, moving, and setting into place.

F. Certifications
   1. Certification of compliance with ASME BPVC, and data reports in accordance with the ASME BPVC and other local codes as required.

1.05 WARRANTY

A. Provide manufacturer's standard warranty.

PART 2 PRODUCTS

2.01 GENERAL

A. As specified in Section 01600 - Product Requirements and Section 15050 - Common Work Results for Mechanical Equipment.

2.02 MANUFACTURERS

A. Hydropneumatic bladder tank:
   1. One of the following or equal:
      a. Wessels Co., Model FXA.
      b. John Wood Co., equivalent model.

2.03 DESIGN AND PERFORMANCE CRITERIA

A. General:
   1. Design, fabricate, and test tanks in accordance with the requirements of:
      a. ASME BPVC.
      b. As specified in Section 01850 - Design Criteria.
      c. Applicable local codes and regulations.
   2. Where conflicts between design criteria exist, request clarification from the Engineer.

B. Hydropneumatic bladder tank: 21-TNK-1100
   1. Vertically mounted tanks, designed for the operating conditions specified:

Minimum Capacity	1,980 gallons
Maximum Diameter	6 feet
Pressure Cut-In (psi)	95
Pressure Cut-Out (psi)	115
Maximum Operating Pressure	200 pounds per square inch
Temperature Range	50 to 90 degrees Fahrenheit
Minimum Bladder Lifetime Cycles(1)	50,000
Notes: (1) 1 Cycle = When hydropneumatic tank bladder experiences 1 duration of Cut-In to Cut-Out pressure.	

   2. Pressure rating: Unless otherwise indicated on the Drawings, hydropneumatic bladder tanks shall be fabricated in accordance with the ASME BPVC for unfired pressure vessels, for a design pressure rating not less than the lesser of:
      a. 150 percent of the maximum operating pressure, or
      b. 50 pounds per square inch gauge above the maximum operating pressure.
   3. Corrosion allowance: 1/8-inch at shell, heads, and attachments.
   4. Tank seal water volume shall be a minimum of 10 percent of the overall tank capacity.

2.04 MATERIALS

A. Tank:
   1. Constructed using carbon steel with interior and exterior coatings in unless otherwise indicated on the Drawings.
   2. Lifting lugs: Provide lifting lugs at top of tank.
   3. Anchor clips:
      a. Manufacturer's standard configuration, attached to tank skirt, and as required to resist design forces specified.

B. Bladder: Provide sealed bladder system to separate liquid from the steel tank and the air cushion:
   1. Heavy-duty butyl rubber bladder rated for the maximum operating temperature specified.
   2. Liquid contained inside the bladder through an exterior system fill connection.
      a. Material in direct contact with water certified under NSF-61.
   3. Bladder and system connection mounted on a tank flanged connection so that bladder is replaceable through the tank flanged connection.
   4. Tank factory pre-charged to the specified pressure with oil-free compressed air.

C. Nameplates and certification stamps:
    1. Nameplate:
        a. Each tank shall bear a stainless steel ASME nameplate.
        b. Each nameplate shall bear the applicable code symbol.
    2. ASME Stamp:
        a. Stamp applied to the tank shell.
        b. Manufacturer shall be authorized by ASME to apply the applicable code symbols.

D. Fittings and attachments:
    1. Fittings as specified in Section 15120 - Piping Specialties or as indicated on the Drawings.
    2. Fittings larger than 1 inch shall be flanged.
    3. Fittings 1 inch and smaller shall be National Pipe Thread.

E. Access openings:
    1. Access openings shall be flanged and, unless otherwise indicated on the Drawings, have a nominal diameter of at least 24 inches.
    2. The coverplate and flange of access openings shall each have a net thickness, after machining, of at least 1/2-inch or as required to meet the vessel design pressure.
    3. Reinforce openings in accordance with the ASME BPVC.

F. Weld shell attachments for pipe supports, tank gauges, instruments, and other items as indicated on the Drawings before application of the tank interior coating.

2.05 APPURTENANCES

A. Air charging valve:
    1. Standard Schrader valve.

B. System connection: Sized to match piping to which it connects as indicated on Drawings.

C. Air relief valve:
    1. Air relief valve shall be sized by manufacturer in accordance with ASME BPVC for unfired pressure vessels.
        a. Drain connection located on tank air side.
        b. Manufacturer's standard size for the tank size.

D. Manual air vent valve:
    1. Screwdriver operated, low projection type vent for shallow height clearance installation; or needle valve, designed for the tank pressure rating at the maximum operating temperature with 1/8-inch male pipe thread connection.
    2. Manufactures: One of the following or equal:
        a. Armstrong, 505A.
        b. Bell and Gossett, 4V.

E. Pressure gauge:
   1. Pressure gauges shall be as specified in Section 17404 - Pressure/Vacuum Measurement: Gages, with a 0 to 125 pounds per square inch gauge dial range.
   2. Pressure gauge shall be separated from the tank by ball valves and insulating bushings.

F. Anchors:
   1. Anchoring to structures:
      a. As indicated on the Drawings and as specified in Section 05190 - Mechanical Anchoring and Fastening to Concrete and Masonry.

2.06 FABRICATION

A. Welding:
   1. Weld and test welding in accordance with ASME BPVC.
   2. Excessive reinforcement shall be ground down to within the ASME BPVC requirements, and as required to install the lining systems.
   3. Internal corners and edges shall be ground to a 1/8-inch radius, or a greater radius if required by the lining system.

B. Protective coating:
   1. Interior surfaces: Factory coated with high solids epoxy coating as specified in Section 09960 - High-Performance Coatings.
   2. Exterior surfaces: Factory coated with primed for field coating as specified in Section 09960 - High-Performance Coatings.

PART 3 EXECUTION

3.01 PREPARATION

A. Anchoring and bracing to structures:
   1. Prepare equipment anchor setting template(s) and use to position anchors during construction of supporting structure(s).
   2. Install anchors of type and material indicated on approved anchoring designs.
   3. Install anchors with embedment indicated on approved anchoring designs.

3.02 INSTALLATION

A. Install tanks:
   1. As indicated on the Drawings.
   2. As specified in Section 15050 - Common Work Results for Mechanical Equipment.
   3. In accordance with accepted manufacturer’s installation instructions and accepted anchorage design details.

B. Apply coating in accordance with coating manufacturer’s instructions. Comply with drying time requirements between coats as stated in manufacturer’s instructions.

3.03 COMMISSIONING

A. As specified in Section 01756 - Commissioning.

B. Source Testing (Factory Acceptance Tests):
   1. Not witnessed.
   2. Furnish: Test reports and Manufacturer's Certificate of Source Testing.
      a. Certification of compliance with ASME BPVC for design and performance criteria specified with be considered acceptable Source Testing.

C. Installation Verification:
   1. Furnish: Documentation not required.

D. Functional Testing:
   1. Equipment testing:
      a. Hydropneumatic bladder tank(s).

E. System Testing:
   1. As specified in Section 01756 - Commissioning, Attachment G.
   2. As specified in this Section.
   3. Furnish Manufacturer's Certificate of Functional Compliance.

END OF SECTION

ITEM #	PART NUMBER	Description	RAW MAT'L	QTY.
1	99B5594D	SHELL: C/S DOMESTIC	9101124	1
2	99B5595D	SHELL: C/S DOMESTIC	9101124	1
3	9200256D	72" OD HEADS DOMESTIC		2
4	9500080	SPUD: 2in. NPT C/S		1
5	9800495D	PIPE: 2" SLOTTED PVC DOMESTIC		1
6	93P1267D	PIPE: 4in. C/S	9301090D	1
7	99P5600D	PIPE: 4in. C/S DOMESTIC		1
8	9421060D	ELBOW: 4in. C/S DOMESTIC		1
9	9400066D	FLANGE: 10in. C/S DOMESTIC		1
10	9461810D	FLANGE: 16in. 150# WNRF C/S DOMESTIC		1
11	9400350D	FLANGE: 16in. 150# BLIND C/S DOMESTIC		1
12	9461070D	FLANGE: 4in. 150# SORF C/S DOMESTIC		1
13	9400045D	COVER 10in C/S DOMESTIC	9101124	1
14	9471016	GASKET: 16in. X 1/16in. 150# GARLOCK F.F.		1
15	9800385	BLADDER		1
16	9400595D	BAG BRACE C/S DOMESTIC	9100092D	2
17	9400543	LIFT LUG C/S		3
18	9800537D	STUD: 5/8in.-11 C/S DOMESTIC		8
19	9800541D	BOLT 5/8in-11UNC DOMESTIC		2
20	9800585D	BOLT: 1in.-8UNC DOMESTIC		16
21	9800620D	NUT 5/8in.-11 C/S DOMESTIC		10
22	9800640D	NUT 1in-8UNC DOMESTIC		16
23	99E0369D	BACKING RING: C/S DOMESTIC		3
24	9400433D	3" BASERING CLIPS (DOMESTIC)		4
25	99Q0761D	BASERING: C/S DOMESTIC		1
26	9600830	DATA PLATE: 304 SST DOMESTIC		1

REVISIONS				
REV.	DATE	DESCRIPTION	QCM	EM
0	7/7/25	ORIGINAL		

JOB: Hilo WWTP Rehab and Replacement Phase 1

REPRESENTATIVE: Dawson Co.

UNIT TAG: 21-TNK-1100

QUANTITY: 1

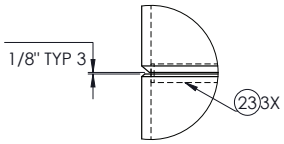
ENGINEER: Carollo Engineers

SUBMITTED BY: Manny Masso

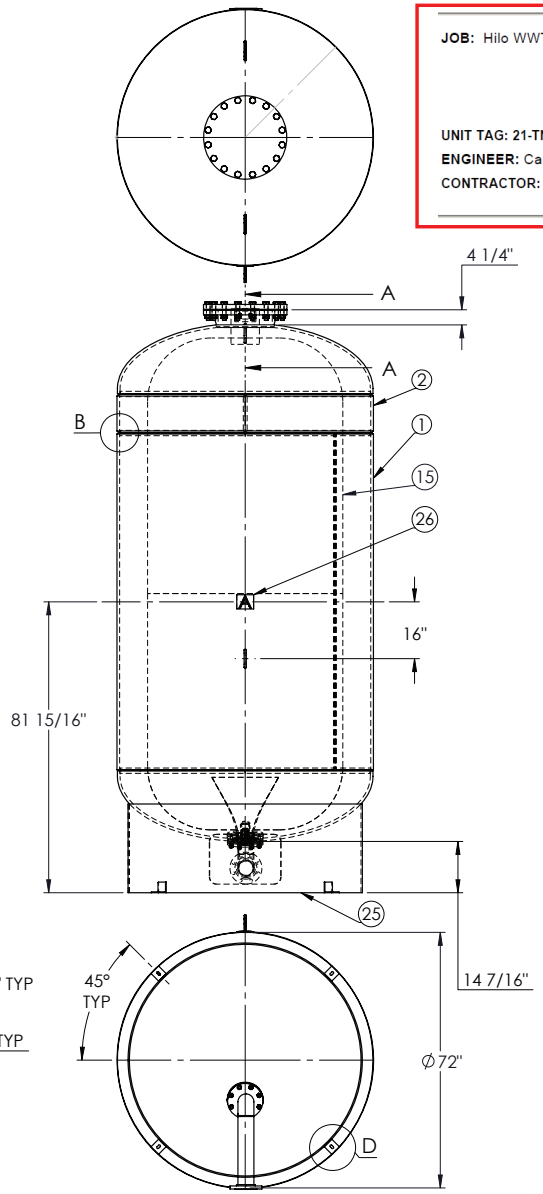
CONTRACTOR: Nan Inc.

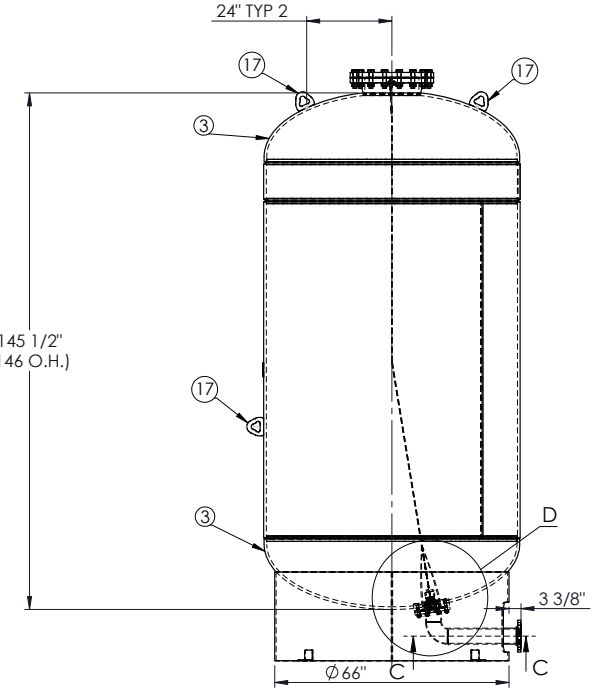
DATE: 08-27-2025

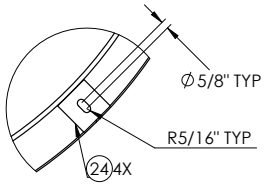
- ***Any Accessories by "others".***
- ***Anchoring and bracing calculations are to be provided under separate cover once the tank has been approved and released for production.***
- ***ASME Tank certificate will be provided separately once the tank is built and tested according to ASME standards.***



DETAIL B
SCALE 1 : 10
BACKING RING







DETAIL D
SCALE 1 : 10
CLIP

NOTES:
1. EXTERIOR: MACROPOXY 646SW INDUSTRIAL GRAY
2. INTERIOR: MACROPOXY 5500LT 3-5MILS DFT
3. TEST PRESSURE: 260 PSIG
4. CORROSION ALLOWANCE: .125
5. IMPACT TEST EXEMPT PER UG-20(f)(1-5) & UCS-66
6. NDE: NONE
7. INSTALL PLASTIC THREAD/FLANGE PROTECTORS.
8. NO POST-WELD HEAT TREATMENT REQUIRED.
9. ALL BOLT HOLES TO STRADDLE CENTERLINE.
10. ESTIMATED WEIGHT: 8490.67 LB

SPECIFICATIONS
OD: 72" LGTH: 146"
MAWP: 200 PSI AT 180°F
MDMT: 0°F AT 200 PSI
WC: 2000 GAL
CODE: "U" LATEST EDITION
WELD DETAILS: GIVEN

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/4"
ANGULAR ±2 1/2°

SINCE 1908 wessels company

DAWSON 72in. 200# CUSTOM ASME; EPOXY IE (AIS)

SCALE: 1:35	P/N: A-V2200010
DATE: 7/8/25 BY: NB	

ITEM #	PART NUMBER	Description	RAW MAT'L	QTY.
1	99B5594D	SHELL: C/S DOMESTIC	9101124	1
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5	9800495D	PIPE: 2" SLOTTED PVC DOMESTIC		1
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10	9461810D	FLANGE: 16in. 150# WNRF C/S DOMESTIC		1
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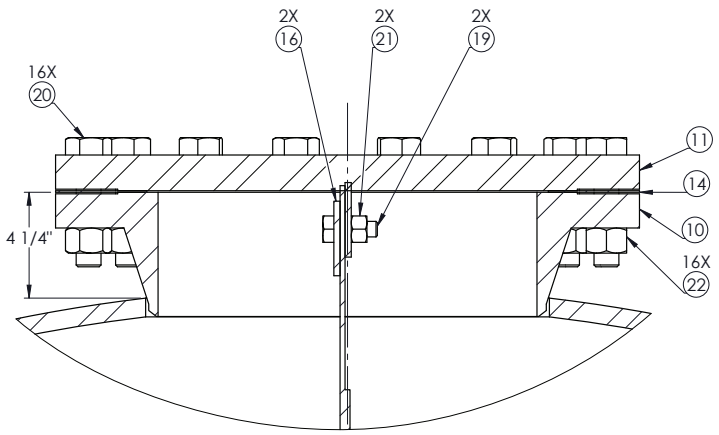
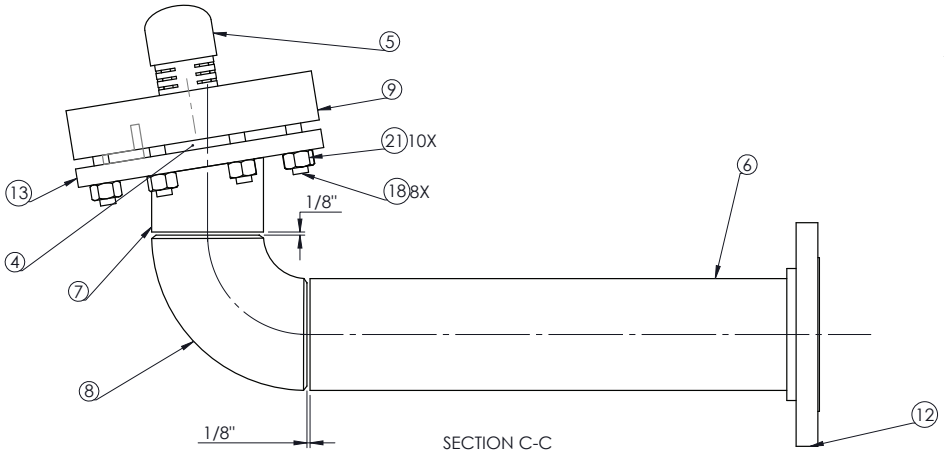
12	9461070D	FLANGE: 4in. 150# SORF C/S DOMESTIC		1
13	9400045D	COVER 10in C/S DOMESTIC	9101124	1
14	9471016	GASKET: 16in. X 1/16in. 150# GARLOCK F.F.		1
15	9800385	BLADDER		1
16	9400595D	BAG BRACE C/S DOMESTIC	9100092D	2
17	9400543	LIFT LUG C/S		3
18	9800537D	STUD: 5/8in.-11 C/S DOMESTIC		8
19	9800541D	BOLT 5/8in-11UNC DOMESTIC		2
20	9800585D	BOLT: 1in.-8UNC DOMESTIC		16
21	9800620D	NUT 5/8in.-11 C/S DOMESTIC		10
22	9800640D	NUT 1in-8UNC DOMESTIC		16
23	99E0369D	BACKING RING: C/S DOMESTIC		3
24	9400433D	3" BASERING CLIPS (DOMESTIC)		4
25	99Q0761D	BASERING: C/S DOMESTIC		1
26	9600830	DATA PLATE: 304 SST DOMESTIC		1



SECTION A-A
SCALE 1 : 5
TOP WNRF



SECTION C-C
SCALE 1:5
4" BTM CONNECTION

NOTES:
1. EXTERIOR: MACROPOXY 646SW INDUSTRIAL GRAY
2. INTERIOR: MACROPOXY 5500LT 3-5MILS DFT
3. TEST PRESSURE: 163 PSIG
4. CORROSION ALLOWANCE: .125
5. IMPACT TEST EXEMPT PER UG-20(f)(1-5) & UCS-66
6. NDE: NONE
7. INSTALL PLASTIC THREAD/FLANGE PROTECTORS.
8. NO POST-WELD HEAT TREATMENT REQUIRED.
9. ALL BOLT HOLES TO STRADDLE CENTERLINE.
10. ESTIMATED WEIGHT: 8490.67 LB

SPECIFICATIONS
OD: 72" LGTH: 146"
MAWP: 200 PSI AT 180°F
MDMT: 0°F AT 200 PSI
WC: 2000 GAL
CODE: "U" LATEST EDITION
WELD DETAILS: GIVEN

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/4"
ANGULAR ±2 1/2°

SINCE 1908 wessels company

DAWSON 72in. 200# CUSTOM ASME; EPOXY IE (AIS)

SCALE: 1:35 | P/N: A-V2200010

DATE: 7/8/25 | BY: NB

Protective & Marine Coatings
PRODUCT DATA SHEET

MACROPOXY® 646
FAST CURE EPOXY MASTIC

Revised: October 19, 2021

PRODUCT DESCRIPTION

MACROPOXY 646 Fast Cure Epoxy Mastic is a high solids, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

INTENDED USES

- Recommended for marine applications, refineries, offshore platforms, fabrication shops, chemical plants, tank exteriors, power plants, water treatment plants, and mining and minerals industry
- Limited colors are acceptable for immersion use for salt water and fresh water, not acceptable for potable water

PRODUCT DATA

Finish: Semi-Gloss

Colors: Mill White, Black and a wide range of colors available through tinting

Volume Solids: 72% ± 2%, mixed, Mill White

VOC (mixed): <250 g/L; 2.08 lb/gal

Mix Ratio: 1:1 by volume

Typical Thickness:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**7.0** (175)	**13.5** (338)
Dry mils (microns)	**5.0*** (125)	**10.0** (250)
~Coverage sq ft/gal (m^2/L)	**115** (2.9)	**230** (5.8)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1152** (28.2)	

*May be applied at 3.0-10.0 mils (75-250 microns) dft as an intermediate in a multicoat system.

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

Shelf Life: 36 months, unopened
Store indoors at 40°F (4.5°C) to 110°F (43°C).

Flash Point: 91°F (33°C), TCC, mixed

Reducer/Clean Up: Reducer #111 or Oxsol 100

Weight: 12.9 ± 0.2 lb/gal ; 1.55 Kg/L, mixed, may vary by color

Average Drying Times @ 7.0 mils (175 microns) wet:

	35°F (1.7°C) *50% RH*	77°F (25°C) *50% RH*	100°F (38°C) *50% RH*
Touch:	4-5 hours	2 hours	1.5 hours
Handle:	48 hours	8 hours	4.5 hours
Recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
Cure to service:			
atmospheric:	10 days	7 days	4 days
immersion:	14 days	7 days	4 days

Average Drying Times as intermediate @ 5.0 mils (125 microns) wet:

Touch:	3 hours	1 hour	1 hour
Handle:	48 hours	4 hours	2 hours
Recoat:			
minimum:	16 hours	4 hours	2 hours
maximum:	1 year	1 year	1 year

If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.
Paint temperature must be 40°F (4.5°C) minimum.

Pot Life:	10 hours	4 hours	2 hours
Sweat-in-time:	30 minutes	30 minutes	15 minutes

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.

Minimum recommended surface preparation:

Iron & Steel:	Atmospheric: SSPC-SP2/3/ ISO8501-1:2007 St 2 or SSPC-SP WJ-3 / NACE WJ-3L Immersion: SSPC-SP10 / NACE 2/ ISO8501-1:2007 Sa 2.5, 2-3 mil (50-75 micron) profile or SSPC-SP WJ-2/NACE WJ-2L
Stainless Steel:	Atmospheric: SSPC-SP16, 1 mil (25 micron) profile
Aluminum & Galvanizing:	SSPC-SP1. If surface has not be weathered for more than 6 months, follow SSPC-SP1 then SSPC-SP16. For fire proofing projects, consult a Sherwin-Williams representative for surface preparation requirements.
Concrete & Masonry:	Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R CSP 1-3 Immersion: SSPC-SP13/NACE 6-4.3.1
Ductile Iron Pipe:	Atmospheric: NAPF 500-03-03 Power Tool Cleaning Buried & Immersion: NAPF 500-03-04 Abrasive Blast Cleaning Cast Ductile Iron Fittings: NAPF 500-03-05 Abrasive Blast Cleaning

Protective & Marine Coatings
PRODUCT DATA SHEET

MACROPOXY® 646
FAST CURE EPOXY MASTIC

APPLICATION

Airless Spray*
Pump.....30:1
Pressure.....2800-3000 psi (193-206 bar)
Hose.....1/4" ID (6.3 mm)
Tip.....017"-.023" (0.43-0.58 mm)
Filter.....60 mesh
Reduction.....As needed up to 10% by volume

Conventional Spray*
Gun.....DeVilbiss MBC-510
Fluid Tip.....E
Air Nozzle.....704
Atomization Pressure.....60-65 psi (4.1-4.5 bar)
Fluid Pressure.....10-20 psi (0.7-1.4 bar)

Brush*
Brush.....Nylon/Polyester or Natural Bristle

Roller*
Cover.....3/8" woven with solvent resistant core

Plural Component Spray..Acceptable

*Reduction.....As needed up to 10% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.

RECOMMENDED SYSTEMS

Dry Film Thickness / ct.		Mils	(Microns)
Steel & Ductile Iron, Immersion & Atmospheric			
2 Cts.	Macropoxy 646	5.0-10.0	(125-250)
Steel, Organic Zinc Primer, Atmospheric			
1 Ct.	Zinc Clad IV (85)	3.0-5.0	(75-125)
1 Ct.	Macropoxy 646	5.0-10.0	(125-250)
Steel, Inorganic Zinc Primer, Atmospheric			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 646	5.0-10.0	(125-250)
Steel, Organic Zinc/Epoxy/Urethane Topcoat			
1 Ct.	Zinc Clad IV (85)	3.0-5.0	(75-125)
1 Ct.	Macropoxy 646	3.0-10.0	(75-250)
1 Ct.	Acrolon 7300	2.0-4.0	(50-100)
Steel, Inorganic Zinc/Epoxy/Urethane Topcoat			
1 Ct.	Zinc Clad II (85)	2.0-4.0	(50-100)
1 Ct.	Macropoxy 646	3.0-10.0	(75-250)
1 Ct.	Acrolon 7300	2.0-4.0	(50-100)
Steel, Organic Zinc/Epoxy/Polysiloxane Topcoat, Atmospheric			
1 Ct.	Zinc Clad IV (85)	3.0-5.0	(75-125)
1 Ct.	Macropoxy 646	3.0-10.0	(75-250)
1-2 Cts.	Sher-Loxane 800	2.0-4.0	(50-100)
Concrete/Masonry, Smooth, Immersion & Atmospheric			
2 Cts.	Macropoxy 646	5.0-10.0	(125-250)

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

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, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

APPLICATION CONDITIONS

Temperature:
Air: 35°F (1.7°C) minimum, 120°F (49°C) maximum
Surface*: 35°F (1.7°C) minimum, 250°F (120°C) maximum
Material: 40°F (4.5°C) minimum
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

*Application to surfaces above 120°F (49°C) is not recommended in VOC Restricted Areas (≤250 g/L). When spraying a surface above 120°F (49°C) in other areas (>250 g/L), please consult with your Sherwin-Williams representative.

APPROVALS

- Suitable for use in USDA inspected facilities
- Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative)
- Conforms to AWWA D102 OCS #5
- Conforms to MPI # 108
- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities*
- Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only)
- Approved intermediate for NEPCOAT System B
- Approved to Norsok M501 system 7B (limited colors)

* Nuclear qualifications are NRC license specific to the facility

ADDITIONAL NOTES

Tint Part A with Maxitoners at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting is not recommended for immersion service.

Quick-Kick Epoxy Accelerator is acceptable for use. See data page for details.

Acceptable for concrete floors.

Application to surfaces above 120°F (49°C) is not recommended in VOC Restricted Areas (≤250 g/L). When spraying a surface above 120°F (49°C) in other areas (>250 g/L), please consult with your Sherwin-Williams representative. Spray apply only. Product will produce an orange peel appearance when applied at elevated temperatures.

Topcoating: It is recommended to apply a thinned-down, low wet film thickness mist coat over zinc rich primers to help avoid outgassing. Allow it to tack up and seal the surface. Then apply a full wet film thickness coat as directed.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

HEALTH AND SAFETY

Refer to the SDS 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.

DISCLAIMER

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Protective & Marine Coatings

Certified to NSF/ANSI/CAN 61

Meeting Health Effects Requirements of NSF/ANSI/CAN 600

MACROPOXY® 5500LT
POTABLE WATER EPOXY

PART A	B58-X745	SERIES
PART B	B58VX740	HARDENER
PART B	B58VX745	OAP HARDENER

Revised: February 13, 2023

PRODUCT INFORMATION

4.86LT

PRODUCT DESCRIPTION

MACROPOXY 5500LT is a high solids, polyamidoamine epoxy tank lining developed for potable water storage tanks. Superior spray and performance properties make Macropoxy 5500LT ideal for field or shop applications.

- Low odor
- Outstanding application properties
- Recommended for potable water
- Capable of low temperature cure

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Red Primer; White, Light Blue and Beige Topcoats
Volume Solids:	71% ± 2%, mixed
Weight Solids:	77% ± 2%, mixed
VOC (EPA Method 24):	<100 g/L ; 0.83 lb/gal, mixed
Mix Ratio:	1:1 by volume

PRIMER Recommended Spreading Rate per coat:

B58RX745	Minimum	Maximum
Wet mils (microns)	**3.0** (75)	**10.0** (250)
Dry mils (microns)	**2.0** (50)	**8.0** (200)
~Coverage sq ft/gal (m^2/L)	**142** (3.5)	**570** (14.0)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1139** (28.0)	

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

PRIMER Drying Schedule @ 3.0 mils (75 microns) wet:

B58RX745	@ 35°F/2°C	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 95°F/35°C	@ 120°F/49°C
To touch:	4.5 hours	4.5 hours	2.5 hours	1 hour	1 hour
To handle:	8 hours	8 hours	6.5 hours	3.5 hours	3 hours
To recoat:					
minimum*:	18 hours	18 hours	16 hours	8 hours	6 hours
maximum:	60 days	60 days	60 days	28 days	28 days
Immersion service:	7 days at 40°F (4.5°C)				
Pot life:	8 hours	8 hours	6 hours	4 hours	3 hours
Sweat-in-time:	30 minutes	not required	not required	not required	not required

*Sterilize and rinse per AWWA C652.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

TOPCOAT Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**8.0** (200)	**18.0** (450)
Dry mils (microns)	**6.0** (150)	**14.0** (350)
~Coverage sq ft/gal (m^2/L)	**81** (2.0)	**190** (4.7)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1139** (28.0)	

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

PRODUCT CHARACTERISTICS (CONT'D)

TOPCOAT Drying Schedule @ 10.0 mils (250 microns) wet:

	@ 35°F/2°C	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 95°F/35°C	@ 120°F/49°C
To touch:	4.5 hours	4.5 hours	2.5 hours	1 hour	1 hour
To handle:	8 hours	8 hours	6.5 hours	3.5 hours	3 hours
To recoat:					
minimum*:	18 hours	18 hours	16 hours	8 hours	6 hours
maximum:	60 days	60 days	60 days	28 days	28 days
Immersion service:	7 days at 40°F (4.5°C)				
Pot life:	8 hours	8 hours	6 hours	4 hours	3 hours
Sweat-in-time:	30 minutes	not required	not required	not required	not required

*Sterilize and rinse per AWWA C652.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	67°F (19°C), Seta Flash, mixed
Reducer / Clean Up:	Reducer R7K111*

*maximum solvent addition is 7%

RECOMMENDED USES

- NSF approved to Standard 61/600 - for potable water service, consult WWW.NSF.ORG
- Water treatment plants
- Complies with AWWA D102 for ICS #1, #2, #5, and #6 ; and OCS #5 & #6
- Complies with AWWA D102
- Meets the requirements of AWWA C210

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE 2
1 ct. Macropoxy 5500LT @ 6.0 mils (150 microns) dft
*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	114 mg loss
Adhesion	ASTM D4541	>2,100 psi
Corrosion Weathering	ASTM D5894 12,000 hours	Rating 10 per ASTM D714 for blistering Rating 10 per ASTM D610 for rusting
Direct Impact Resistance	ASTM D2794	30 in. lb.
Dry Heat Resistance	ASTM D2485	250°F/121°C
Flexibility	ASTM D522, 180° bend, 3/4" mandrel	Passes
Humidity Resistance	ASTM D4585, 6000 hours	No blistering, cracking or rusting
Immersion H_20 and Salt H_20	18 months fresh and salt water	Rating 10 per ASTM D714 for blistering Rating 10 per ASTM D610 for rusting
Pencil Hardness	ASTM D3363	3H

Epoxy coatings may darken or discolor following application and curing.
Above are typical results and should not be construed as a specification.

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Protective & Marine Coatings

Certified to NSF/ANSI/CAN 61

Meeting Health Effects Requirements of NSF/ANSI/CAN 600

MACROPOXY® 5500LT
POTABLE WATER EPOXY

PART A	B58-X745	SERIES
PART B	B58VX740	HARDENER
PART B	B58VX745	OAP HARDENER

Revised: February 13, 2023

PRODUCT INFORMATION

4.86LT

RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Immersion and Atmospheric:			
Ductile Iron Pipe:			
Shop Applied:			
1-2 cts.	Macropoxy 5500LT	6.0-14.0	(150-350)
or			
Field Applied:			
1 ct.	Macropoxy 5500LT or 5500LT Primer	3.0-14.0	(75-350)
1 ct.	Macropoxy 5500LT	6.0-14.0	(150-350)
Steel:			
2-3 cts.	Macropoxy 5500LT	6.0-14.0*	(150-350)
or			
1 ct.	Macropoxy 5500LT Primer	2.0-6.0	(50-150)
1-3 cts.	Macropoxy 5500LT	6.0-14.0*	(150-350)
Concrete:			
2-3 cts.	Macropoxy 5500LT	6.0-14.0*	(150-350)
or			
1 ct.	Macropoxy 5500LT Primer	2.0-6.0	(50-150)
1-3 cts.	Macropoxy 5500LT	6.0-14.0*	(150-350)
Potable Water Tanks, Steel:			
***AWWA D102: Inside Coating System No. 1**			
minimum AWWA		8.0	(200)
1 ct.	Macropoxy 5500LT	3.0	(75)
1 ct.	Macropoxy 5500LT	5.0	(125)
***AWWA D102: Inside Coating System No. 2**			
minimum AWWA		12.0	(300)
1 ct.	Macropoxy 5500LT	3.0	(75)
1 ct.	Macropoxy 5500LT	4.0	(100)
1 ct.	Macropoxy 5500LT	5.0	(125)

Acceptable for use with AWWA D102: Component of Outside Coating System No. 5 and No. 6

Other acceptable topcoats over Macropoxy 5500LT Primer:
Dura-Plate UHS
Sher-Plate PW

*Maximum of 28.0 mils (700 microns) for entire system

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

DISCLAIMER

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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:
- Atmospheric: SSPC-SP2/3
- Immersion: SSPC-SP10/NACE 2, 2-4 mil (50-100 micron) profile

Ductile Iron Pipe:
- Atmospheric: NAPF 500-03-03 Power Tool Cleaning
- Buried & Immersion: NAPF 500-03-04 Abrasive Blast Cleaning
- Cast Ductile Iron Fittings: NAPF 500-03-05 Abrasive Blast Cleaning

Concrete:
- Atmospheric: SSCP-SP13/NACE 6 with an ICRI CSP 2-4
- Immersion: SSPC-SP13/NACE 6 with an ICRI CSP 2-4

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White Metal		Sa 3	SP 5	1
Near White Metal		Sa 2.5	SP 10	2
Commercial Blast		Sa 2	SP 6	3
Brush-Off Blast		Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	SP 2	-
	Pitted & Rusted	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	SP 3	-
	Pitted & Rusted	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:
- Air & Surface: 35°F (2°C) minimum, 120°F (49°C) maximum
- Material: 35°F (2°C) minimum, 100°F (38°C) maximum
  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) and 5 gallon (18.9L) containers
- Part B: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 13.3 ± 0.2 lb/gal ; 1.6 Kg/L, mixed, may vary by color

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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WARRANTY

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Protective & Marine Coatings

Certified to NSF/ANSI/CAN 61

Meeting Health Effects Requirements of NSF/ANSI/CAN 600

MACROPOXY® 5500LT
POTABLE WATER EPOXY

PART A	B58-X745	SERIES
PART B	B58VX740	HARDENER
PART B	B58VX745	OAP HARDENER

Revised: February 13, 2023

APPLICATION BULLETIN

4.86LT

SURFACE PREPARATIONS

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.

Carbon Steel, Immersion Service:
The surface shall be abrasive blasted to SSPC-SP10/NACE No. 2 Near-White Blast Cleaning with a 2-4 mil (50-100 micron) profile. The anchor profile shall be sharp with no evidence of a peen surface. The finished surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter with no more than 5% staining. After blasting, all dust and loose residue should be removed from the surface by acceptable means. Coat steel the same day as it is prepared and prior to the formation of rust.

Iron & Steel:
Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Ductile Iron Pipe, Atmospheric Service:
Minimum surface preparation is Power Tool Clean per NAPF 500-03-03. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

Ductile Iron Pipe, Buried and Immersion Service:
Minimum surface preparation is Abrasive Blast Cleaning per NAPF 500-03-04. Ductile iron pipe external surfaces, in some cases, can be damaged by excessive abrasive blast cleaning beyond this standard. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

Ductile Iron Fittings:
Minimum surface preparation is Abrasive Blast Cleaning of Cast Ductile Iron Fittings per NAPF 500-03-05. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

Concrete and Masonry:
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation
.

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 1-3.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White Metal		Sa 3	SP 5	1
Near White Metal		Sa 2.5	SP 10	2
Commercial Blast		Sa 2	SP 6	3
Brush-Off Blast		Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	SP 2	-
	Pitted & Rusted	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	SP 3	-
	Pitted & Rusted	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:
Air & Surface: 35°F (2°C) minimum, 120°F (49°C) maximum
Material: 35°F (2°C) minimum, 100°F (38°C) maximum
At least 5°F (2.8°C) above dew point.

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up ..... Reducer R7K111

Airless Spray
Pressure.....2700-3000 psi
Hose.....3/8" ID with 1/4" whip
Tip 519-525
Filter.....none
Reduction.....As needed up to 7% by volume

Brush
Brush.....Nylon/Polyester or Natural Bristle
Reduction.....As needed up to 7% by volume

Roller
Cover .....3/8" woven with solvent resistant core
Reduction.....As needed up to 7% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.

continued on back

Protective & Marine Coatings

Certified to NSF/ANSI/CAN 61

Meeting Health Effects Requirements of NSF/ANSI/CAN 600

MACROPOXY® 5500LT
POTABLE WATER EPOXY

PART A	B58-X745	SERIES
PART B	B58VX740	HARDENER
PART B	B58VX745	OAP HARDENER

Revised: February 13, 2023

APPLICATION BULLETIN

4.86LT

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

***PRIMER* Recommended Spreading Rate per coat:**

B58RX745	Minimum	Maximum
Wet mils (microns)	**3.0** (75)	**10.0** (250)
Dry mils (microns)	**2.0** (50)	**8.0** (200)
~Coverage sq ft/gal (m^2/L)	**142** (3.5)	**570** (14.0)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1139** (28.0)	

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

***PRIMER* Drying Schedule @ 3.0 mils (75 microns) wet:**

B58RX745	@ 35°F/2°C	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 95°F/35°C	@ 120°F/49°C
To touch:	4.5 hours	4.5 hours	2.5 hours	1 hour	1 hour
To handle:	8 hours	8 hours	6.5 hours	3.5 hours	3 hours
To recoat:					
minimum*:	18 hours	18 hours	16 hours	8 hours	6 hours
maximum:	60 days	60 days	60 days	28 days	28 days
Immersion service:	7 days at 40°F (4.5°C)				
Pot life:	8 hours	8 hours	6 hours	4 hours	3 hours
Sweat-in-time:	30 minutes	not required	not required	not required	not required

*Sterilize and rinse per AWWA C652.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

***TOPCOAT* Recommended Spreading Rate per coat:**

	Minimum	Maximum
Wet mils (microns)	**8.0** (200)	**18.0** (450)
Dry mils (microns)	**6.0** (150)	**14.0** (350)
~Coverage sq ft/gal (m^2/L)	**81** (2.0)	**190** (4.7)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1139** (28.0)	

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

APPLICATION PROCEDURES (CONT'D)

***TOPCOAT* Drying Schedule @ 10.0 mils (250 microns) wet:**

	@ 35°F/2°C	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 95°F/35°C	@ 120°F/49°C
To touch:	4.5 hours	4.5 hours	2.5 hours	1 hour	1 hour
To handle:	8 hours	8 hours	6.5 hours	3.5 hours	3 hours
To recoat:					
minimum*:	18 hours	18 hours	16 hours	8 hours	6 hours
maximum:	60 days	60 days	60 days	28 days	28 days
Immersion service:	7 days at 40°F (4.5°C)				
Pot life:	8 hours	8 hours	6 hours	4 hours	3 hours
Sweat-in-time:	30 minutes	not required	not required	not required	not required

*Sterilize and rinse per AWWA C652.

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

PERFORMANCE TIPS

Note: Once maxiumum pot life is exceeded, product may be sprayable but will not hold sag.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, rough-ness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, over thinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K111.

Tinting is not recommended for immersion service.

Do not use Quik-Kick Epoxy Accelerator.

Insufficient ventilation, incomplete mixing, miscatalyzation, and external heaters may cause premature yellowing.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment. Avoid entrapment by following the recommended application procedures.

For Immersion Service: Electrical holiday inspection should be performed in accordance with NACE RP 0188 "Discontinuity (Holiday) Testing of Protective Coatings" or ASTM D 5162-91 "Standard Practice for Discontinuity (Holiday) Testing of Non-conductive Protective Coating of Metallic Substrates."

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with R7K111. Clean tools immediately after use with R7K111. Follow manufacturer's safety recommendations when using any solvent.

WARRANTY

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SINCE 1908
wessels company

LINED WATER STORAGE TANKS

STOCK & CUSTOM

FEATURES

Wessels storage tanks are ideal for use with gas-fired copper heat exchanger equipment and other hot water systems, or storage of booster system pressurized for storage of any potable water at temperatures upto 180 degrees or lower.

EPOXY-LINING -All internal surfaces are sand blasted and lined with multiple coats of epoxy towards compliance with customer requirements. Tanks are manufactured per ASME Section VIII, Div. 1 requirements, using an NSF approved epoxy-lining compound, per requirements.

SIZES FROM 80 TO 5,000 GALLONS -Standard tanks in are normally carried in stock. Custom tank configurations are available for quote.

HORIZONTAL OR VERTICAL MOUNTING
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WORKING PRESSURES
Tanks tested at test pressures assigned in accordance with ASME and the working pressures of the tank.

OPTIONS

ASME and National Board Certification sheets, tank saddles -two per horizontal tank required.

Custom line tanks available to meet various specifications, alternate working pressures, lifting lugs, handholes, manholes, special opening sizes or locations.

EPOXY-LINED VESSELS – Epoxy linings are applied in multiple coats over a sandblasted surface. Epoxy typically contains organic solvents that have a distinctive odor. Epoxy lined tanks are force cured using hot air prior to shipping. Prior to installation, it is recommended to leave the vessel open for as long as possible before start-up. This allows the solvent to fully evaporate allow for complete reduction or elimination of any odor trapped in the tank. This is particularly important if hot water is likely to remain stagnant in the tank for long periods, especially if the use is such that any trace of taste or odor is unacceptable. Once immersed, any residual solvents take much longer to disperse.

After installation, fill the system and run at operating temperature for at least one day in closed loop mode. Then drain system, open tank, and wipe clean. Very often the installer has pipe dope left in the tank. This can cause odor.

TERMS AND CONDITIONS

MINIMUM ORDER: $50 net shipped to one location.

PRICES: Prices and terms are subject to change without notice.
Expedite fees may be applicable – Consult factory

TAXES: Applicable taxes apply separately.

FREIGHT TERMS: All orders are F.O.B. Factory.

PAYMENT TERMS: Terms are Net 30 Days to preapproved accounts. New accounts must be prepaid or by credit card until credit is approved. Any accounts over 45 days past due will be placed on credit hold until account is current.

CREDIT APPROVAL: Purchases are subject to credit investigation and approval.

LIMITED WARRANTY: Wessels Co. warrants that its products are of the kind and quality quoted and warrants these products to be free of defective material and/or workmanship only. This warranty is not applicable to operational failures, gasket leaks or malfunctions caused by improper application, installation and/or maintenance. Warranty not applicable if electrolysis condition or ab normal water condition exists. Anode inspection of glass lined storage tanks is required every 6 months. Wessels Co. requires paid receipts to show maintenance of anodes on glass lined tank claims.

Any claim for adjustment under this Limited Warranty must be made within the Warranty period (see below). Wessels Co. shall replace or repair at its option, all parts which upon examination by Wessels Co. prove to be defective material and/or workmanship within the above Limited Warranty. If required by Wessels Co., parts that are claimed defective must be promptly delivered to the Wessels Co. manufacturing facility, transportation charges prepaid. Wessels Co. will not however, accept any claims for labor costs incurred by the user in removing or reinstalling a product and/or part thereof. This warranty does not apply if the defect is due to failure to use the product for its intended purpose, the result of an accident, abuse, misuse or unauthorized alteration, or because the product was not installed and main tained in accordance with standard plumbing practices. However, any and all costs required to ship, disassemble, remove, reassemble, reinstall a bladder and/or tank, shall not be borne by the Wessels Co. and IS NOT COVERED under this warranty. IN NO EVENT SHALL WESSELS CO. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Any implied warranties which the user may have including merchantability and fitness for a particular purpose, shall not extend beyond the period (see below) from date of manufacture of any product. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

WARRANTY PERIODS: 1 YEAR FROM DATE OF SHIPMENT: All Wessels Co. products (except N-style, T-style and glass-lined storage tanks) when used on applications for which they are intended.

5 YEARS FROM DATE OF SHIPMENT: Non-code T-style Thermal Expansion Tanks, non-code N-style expansion tanks, Glass-lined Storage Tanks for potable water without coils, heating devices or burners and temperatures not exceeding 180 degrees Fahrenheit.

WARRANTY RETURN: A return authorization number is required on all material returned for warranty. All freight charges are the responsibility of the shipper.

PRODUCT RETURN: A return authorization number is required on all material returned. A 25% re-stocking charge will apply (minimum of $50 restocking charge).

PRODUCT CHANGES: We reserve the right to change or modify product design or construction without prior notice and without incurring any obligation to make such changes and modifications of products previously or subsequently sold.