

City of Bentonville, Arkansas
 Bentonville WRRF Improvements

B&V Project 417296
 B&V File 80.0930.01
 May 12, 2026

Crossland Heavy Contractors
 Attention: Mr. Matt Hardin

Reference is made to your Submittal 15500-03-B DOAU-1 dated April 13, 2026. The following data pertains to Section(s) 15500 of the Specifications.

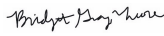
			Review Status					
Identification	Manufacturer	Description	CODE 1 - NO EXCEPTIONS NOTED	CODE 2 - COMMENTS NOTED	CODE 3 - COMMENTS NOTED/CONFIRM	CODE 4 - COMMENTS NOTED/RESUBMIT	CODE 5 - REJECTED/RESUBMIT	CODE 6 - RECEIPT ACKNOWLEDGED
Data	Airtech Corporation	DOAU-1 REVB		X				

Engineer’s review of drawings and data submitted by Contractor covers only general conformity to the Drawings and Specifications, external connections and dimensions which affect the layout. Engineer’s review does not indicate a thorough review of all dimensions, quantities, and details of the material equipment, devices, or item shown. Engineer’s review shall not relieve Contractor of Contractor’s responsibility for errors, omissions, or deviations in the drawings and data, nor of the Contractor’s sole responsibility for compliance with the Contract Documents.

Remarks:

1. Crossland Cover Sheet was not revised to update submittal title from Spec Section 15500 to Spec Section 15650.
2. The unit MCA was designed for 60.6 A. The unit in the first submittal in August 2025 had MCA of 60.6 while the current submitted unit MCA is 92A. Contractor to coordinate the increased power requirements with the electrical circuit.
3. Contractor to note Control Riser Diagram for DOAU-L01 on Contract Drawing EL-4 and the location of DOAU-L01 remote panel ECP-L01 in the existing Mechanical Room on Contract Drawing HL-1.
4. Greenheck response on protective coating for controls is noted. In lieu of coating, the unit housing shall be airtight and wiring connections and electronics inside the housing shall not be exposed to any outdoor air.

BLACK & VEATCH CORPORATION


 Bridget Moore
 Engineering Manager

By: Michele Roth, Scott McBrayer

24A03SP - Bentonville WRRF Improvements



1901 N.E. A Street
Bentonville, Arkansas 72712
United States

Crossland Heavy Contractors, Inc.
1800 S 52nd St, Ste 410
Rogers, Arkansas 72758
United States
(479) 464-7077

Title		Submittal Manager
15500 - Heating, Ventilating, and Air Conditioning : Product Information : Dedicated Outside Air Unit		Adrian Ensaldo
Spec Section		Type
15500 - Heating, Ventilating, and Air Conditioning		Product Information
Number	Rev	
15500-3	B	

Description

A. Drawings and Data 1. Complete assembly and installation drawings, and wiring and schematic diagrams, together with detailed specifications and data covering materials, parts, devices, and accessories forming a part of the equipment furnished, shall be submitted in accordance with the Submittals Procedures section. Device tag numbers indicated on the Drawings shall be referenced on the wiring and schematic diagrams where applicable. The data and specifications for each unit shall include, but shall not be limited to, the following: a. Makeup Air Units 1) Name of manufacturer 2) Type and model 3) Construction materials, thickness, and finishes 4) Input and output heating capacities 5) Filter velocities 6) Overall dimensions and required clearances 7) Net weight and load distribution 8) Performance curves with the specified operating point clearly identified for each unit, type, and model, with capacity in cubic feet per minute as the abscissa and brake horsepower, static pressure, and efficiency as the ordinate. The fan curves shall include a family of curves for at least 5 different rotative speeds on a single chart 9) Certified AMCA standard test code sound power output data for the fan outlet and casing when operating at the specified volume flow rate. Sound data shall list dB re 10-12 watts in each octave band, with midrange frequencies starting at 63 Hz and ending at 8,000 Hz 10) Multiline wiring diagrams clearly indicating factory installed and field installed wiring with all terminals identified 11) Electrical requirements including voltage, number of phases, and amperage 12) Where specified, information on equipment manufacturers' representatives b. Fans 1) Name of manufacturer 2) Type and model 3) Construction materials, thickness, and finishes 4) Overall dimensions and required clearances 5) Net weight and load distribution 6) Performance curves with the specified operating point clearly identified for each unit, type, and model, with capacity in cubic feet per minute as the abscissa and brake horsepower, static pressure, and efficiency as the ordinate. The fan curves shall include a family of curves for at least 3 different rotative speeds on a single chart 7) Certified AMCA standard test code sound power output data for the fan outlet and casing when operating at the specified volume flow rate. Sound data shall list dB re 10-12 watts in each octave band, with midrange frequencies starting at 63 Hz and ending at 8,000 Hz 8) Where specified, information on equipment manufacturers' representatives c. Equipment (not specifically listed) 1) Name of manufacturer 2) Type and model 3) Construction materials, thickness, and finishes 4) Manufacturer's performance data 5) Overall dimensions and required clearances 6) Net weight and load distribution 7) Wiring diagrams d. Sheet Metal Ductwork 1) Sheet metal duct fabrication drawings indicating dimensions of individual shop and field fabricated sections, top and/or bottom duct elevations, joint locations, and dimensions of duct from walls or column rows 2) Pressure and seal classifications 3) Reinforcement types and spacing 4) Joint and seam types 5) Hanger and support types, spacing, and attachment methods 6) Access panel and door construction, sizes, and locations 7) Duct sealant, adhesive, gasket, and tape information 8) Coatings 9) Ductwork materials and thicknesses 10) Product data demonstrating compliance with ASHRAE 62.1 e. Temperature Controls 1) Published descriptive data on each item of equipment and accessories, indicating all specific characteristics and options and identified with the designation used herein and on the Drawings. 2) Schematic control diagrams giving specific data on all settings, ranges, actions, adjustments, and normal positions. Although schematic, these diagrams shall, as closely as possible, represent the actual system with all significant equipment and devices identified and located relative to each other. These diagrams shall also show detailed multiline wiring with all terminals accurately identified. The wiring diagrams shall show the internal connections of the temperature control panels and all field wiring to equipment remote from the control panels, including wiring to Owner furnished



RE-SUBMITTAL DATA

PROJECT: Bentonville Water Resource Recovery Facility

LOCATION: Bentonville, AR

**MECHANICAL
CONTRACTOR:** Comfort Systems USA

EQUIPMENT: Greenheck Dedicated Outside Air Unit (DOAU-L01)

DATE: April 10, 2026

**NOTE: ALL INTERNAL COMPONENTS WILL BE COATED WITH
CORROSIVE RESISTANT EPOXY AND PPG AMERCOAT EPOXY SILOXANE
URETHANE COATING. ALL COILS WILL ALSO BE COATED WITH
HERESITE P413.**

Will McGehee
will@airetechcorp.com



April 10, 2026

Comfort Systems USA - AR
Attn: Josh Zuber
116 Commercial Ave.
Lowell, AR 72745

RE: **Bentonville WRRF**

Josh,

Please see comments and responses below to submittal review on the Greenheck dedicated outside air unit (DOAU-L01)

DEDICATED OUTDOOR AIR UNIT (DOAU-L01)

Comment: Dedicated Outdoor Air Units are specified under Specification Section 15650, correct the Crossland submittal title and headings, and confirm compliance with 15650.

Response: Cover sheet of resubmittal to follow references specification section 15650 as required. Submitted DOAU unit complies with all items in specification 15650 which are applicable to DOAU unit DOAU-L01.

Comment: Contractor to update motor specification enclosure TEFC instead of ODP page number no 7 out of 57. Outdoor equipment requires TEFC motors per spec section 15050-2.03.A.2.a.12. Confirm VFD is corrosion resistant or provide with a corrosion resistant enclosure.

Response: Unit is provided with a special design by Greenheck for TEFC motor. Reference to ODP motor has been replaced with TEFC in resubmittal to follow.

Comment: Contractor to coordinate increased MCA rating for the additional supplemental heating with electrical power circuit.

Response: Increased electrical to be coordinated by mechanical contractor.

Comment: Remote Equipment Control Panel is intended to be provided by the DOAU manufacturer in lieu of a unit mounted control panel. This is for staff access without going onto the roof where the DOAS is located. Remote ECP is a contract requirement and must be provided full human-machine interface if provided by others.

Response: DOAU-L01 will be provided with a remote display which wires directly to unit mounted controller and allows for remote access to unit controller.



Comment: Coating information is noted. Confirm conformal coating for controls, wiring connections and sensitive electronics is also provided.

Response: Greenheck engineering responded that they do not recommend providing a coating to the unit controls, wires or any electronics within the unit. They advise that applying a coating would make serviceability difficult to impossible due to obscuring data and information which are shown on the control inputs/outputs as well as other information listed on the casings of these components.

Please let me know if there are any questions or if additional information is required.

Sincerely,

Will McGehee
Sales Engineer
Airetech Corporation

SUBMITTAL

Job Name: **Bentonville WWTP FINAL**

Elevation: (ft) 1,260

Date: 1/07/2026

Submitted By: Will McGehee

Email: will@airetechcorp.com

Phone: (479)756-8600

AIRETECH CORPORATION

3241 W HUNTSVILLE AVE

SPRINGDALE, AR 72762

US

Phone: (479)756-8600

Fax: (000)000-0000

Email Address: will@airetechcorp.com



P.O. Box 410 Schofield, WI 54476 (715) 359-6171 FAX (715) 355-2399 www.greenheck.com

RV-40-12.5A-1-E2*

Unit Performance

Design Conditions						
Elevation (ft)	Summer		Winter DB (F)	Supply (CFM)	Outdoor Air (CFM)	Exhaust Air (CFM)
	DB (F)	WB (F)				
1,260	84.0	77.1	15.9	1,900	1,900	-

Unit Specifications						
Qty	Weight (lb)	Cooling Type	Primary Heating Type	Secondary Heating Type	Unit Installation	Unit ETL Listing
1	2,619 (+/- 5%)	Air-Source Heat Pump	Air-Source Heat Pump	Electric	Outdoor	UL\cUL 1995/60335-2-40

Configuration			
Outdoor Air		Exhaust Air	
Intake	Discharge	Intake	Discharge
End	Bottom	None	-

ASHRAE 90.1 Compliance			
	ASHRAE 90.1 Min. Efficiency	Calculated Efficiency	Compliance
ISMRE2 (ASHRAE 90.1-2022)	3.8	8.3	✓
ISCOPE2 (ASHRAE 90.1-2022)	2.05	3.25	✓

Cooling Specifications						
Type	Total Capacity (MBH)	Sensible Capacity (MBH)	Coil (DB/WB)		Reheat	
			EAT (F)	LAT (F)	Capacity (MBH)	LAT (F)
Air-Source Heat Pump	149.7	57.1	84.0 / 77.1	53.7 / 53.3	53.4	81.4

Primary Heat Specifications				
Type	Total Capacity (MBH)	Dry Bulb Temperatures		
		EAT (F)	LAT (F)	Ambient Outdoor Air (F)
Air-Source Heat Pump	89.4	15.9	62.8	15.9

Secondary Heat Specifications							
Type	Capacity (kW)	Full Load Amps (FLA)	Capacity Control	Performance (w/ASHP)		Performance (w/o ASHP)	
				EAT (F)	LAT (F)	EAT (F)	LAT (F)
Electric	50.0	62.8	Modulating (SCR)	62.8	145.9	15.9	99.0

Motor Specifications						
Motor	Qty	Operating Power (hp)	Size (hp)	Enclosure	Efficiency	RPM
Supply	1	0.49	1	TEFC	NEMA Premium	1150

Electrical Specifications					
Power Supply	Rating (V/C/P)	MCA (A)	MOP (A)	FLA (A)	Fan Power (W/CFM)*
Unit	460/60/3	92.0	110.0	87.2	0.192

*Fan Power (W/CFM) = (Supply BHP + Exhaust BHP) / Supply CFM

*Nomenclature update from RV-25. This is a display change only with no impact to unit size or performance.

Construction Features And Accessories

Unit	
Unit Installation - Outdoor	Std
Unit Construction - Double Wall	Std
Insulation - 2 inch 2.4# R16 foam	Std
Corrosion Resistant Fasteners	Std
Hinged Access	Std
Factory Wired Non-Fused Disconnect Switch	Std
Direct Drive Plenum Blower & Motor Assemblies	Std
Factory Wired VFDs	Std
Unit Finish - Permatector, Concrete Gray (RAL 7023)	Std
Stainless Steel Condensate Drain Pan and Connection	Std
Condensate Drain Trap	Std
Short Circuit Current - 5 kA	Std
Controls	
Unit Controls - Full Factory Control	Std
Internally Mounted Control Center with 24 VAC control transformer(s) and control circuiting fusing	Std
BMS Protocol - None	
BMS Monitoring Points	
Supply Fan Control - Constant Volume - Adj. Setpoint	X
Exhaust Fan Control	
Exhaust Fan Only Power	
Energy Wheel Rotation Sensor	
Web-Based User Interface	Std
Damper Control - 100% OA-No Recirculation	X
Economizer Control	
Unoccupied Recirc Mode	
Control Accessories	
Remote Display - w/150 ft cord	X
Dirty Filter Sensor(s) - Supply	X
Airflow Monitor	
Room Thermostat	
Phase/Brownout Protection	Std
Economizer Fault Detection Diagnostics	

Accessories	
Recirc Air Damper	
Outdoor Air Damper - Low Leakage	X
Return Air Damper	
Roof Curb - GKD - 45.9/91.9-G14	X
Supply Air Filters - 2" Merv 8, 2-20x20x2, 2-20x24x2	Std
Service Outlet - Factory mounted and wired	X
Piping Vestibule	
Service Lights	X
Condensate Overflow Switch	Std
Spare Filters - Final, Qty: 2 set(s)	X
Exhaust Discharge Gravity Backdraft Damper	
ElectroFin Coil Coating	
Motor Shaft Grounding	X
Bipolar Ionization	
Smoke Detector(s)	
Barometric Relief Damper	
UV Lights	
Hail Guards	X
Warranty Options	
Unit Warranty - 18 Months (Std.)	Std
Compressor Warranty - 5.5 Yrs. (4 Yrs. Extended)	X

Standard Option	Std
Not Included	
Included	X

Notes
Outdoor Air Damper supplied is low leakage, motorized VCD-23 (leakage rate of 3 CFM/ft ² @ 1 in. wg), Class 1A
Leak detection sensors
Air-Source Heat Pump heating may go into defrost or extended lock out (until weather pattern changes) during high humidity or precipitation events. Without supplemental heat, supply discharge temperature may be extremely low during defrost. To avoid this, consider selecting supplemental heat.

Special Design Requests

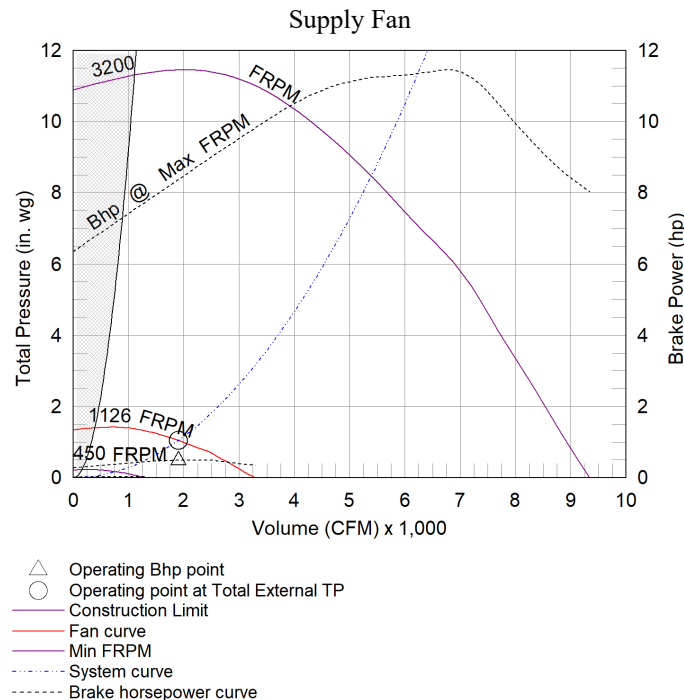
Special Design Number
Special Design Request for "TEFC motor", (Q9999999)

Supply Fan Charts And Performance

Supply Fan Performance									
Total Volume (CFM)	External SP (in. wg)	Total SP (in. wg)	RPM	Operating Power (hp)	Motor		Fan		
					Qty	Size (hp)	Qty	Type	Drive-Type
1,900	0.75	1.053	1126	0.49	1	1	1	Plenum	Direct

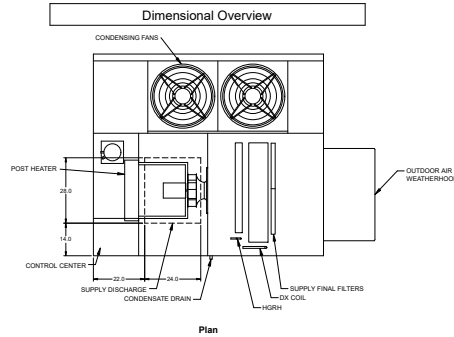
Pressure Drop (in. wg)						
Weatherhood	Filter	Damper	Cooling	Heating	External	Total
0.027	0.047	0.013	0.141	0.048	0.75	1.053

Sound Performance in Accordance with AMCA									
Sound Power by Octave Band								Lwa	dBA
62.5	125	250	500	1000	2000	4000	8000		
71.2	72.2	70.6	63.2	59.0	55.1	72.8	58.4	74.6	63.1



Radiated Sound

Position A



Position D

Position B

Position C

"E" is the
Top Plane

Supply Air Flow Nominal, Largest Tonnage Condensing Section Available, PDX units only

Radiated Sound Levels										
Plane	Octave Bands (Lw)								Plane Lw	Plane LwA
	1	2	3	4	5	6	7	8		
A	73	85	78	80	81	73	67	62	88	83
B	71	79	69	78	73	68	64	57	83	78
C	79	77	69	76	75	70	60	59	83	78
D	74	77	72	74	74	67	61	58	82	77
E	77	84	78	79	77	72	65	61	87	81
Total	83	89	82	85	84	78	71	67	93	87

AMCA 320-07 - Laboratory Methods of Sound Testing of Fans Using Sound Intensity	
Tests conducted in accordance with this standard.	
Free field measurement plane created 1 foot from unit on all sides and top.	
Sound Intensity measured in Watts/m ² .	
Sound data converted to Sound Power (Lw) for the chart above.	
A-Weighted Sound Power was determined using AMCA Standard 301-90 Clause 9.1.	
Plane E sound data was measured above the top plane of the unit.	

Air-Source Heat Pump Performance

Coil Information							
Indoor Coil Model	Fins Per Inch	Rows Deep	Face Vel. (ft/min)	Coil PD (in. wg)	Refrigerant	Refrig. Velocity (ft/min)	Face Area (ft2)
DR516L06S16-45X42.5-LH	16	6	143	0.141	R-454B	1,050	12.4

Compressor Details					
Lead Compressor Type	Compressor Qty	Compressor RLA/MRC (A)		Compressor LRA (A)	
		Comp. #1	Comp. #2	Comp. #1	Comp. #2
Inverter Scroll	1	19.3	NA	NA	NA

Cooling Specifications									
Type	Entering Air (F)		Leaving Air (F)		Capacity (MBH)		Reheat		Condensing Ambient Temp (F)
	DB	WB	DB	WB	Total	Sensible	Capacity (MBH)	LAT (F)	
Air Source Heat Pump	84.0	77.1	53.7	53.3	149.7	57.1	53.4	81.4	84.0

Primary Heat Specifications				
Type	Total Capacity (MBH)	Dry Bulb Temperatures		
		EAT (F)	LAT (F)	Ambient Outdoor Air (F)
Air-Source Heat Pump	89.4	15.9	62.8	15.9

A2L Installation Requirement - UL 60335-2-40		
Largest Circuit Charge	Minimum Circulation Airflow	Minimum Total Conditioned Room Area
35.4lb / 16.1kg	959 CFM	531 ft2

Local codes and standards may have requirements regarding the installation of A2L refrigerants in addition to manufacturing instructions provided for listed and labeled equipment.

Unit Details
Certified by AHRI to AHRI Standard 920, Performance Rating of DX-Dedicated Outdoor Air System Units.
Refrigerant charges provided by the factory are approximate and may require adjustment in the field
Hermetic scroll type compressors
Compressors mounted on neoprene vibration isolation
Stainless steel double sloped drain pan
Moisture-indicating sight glass
Service/charging valves
Refrigerant high pressure switch (manual reset)
Liquid-Line filter drier
Multiple low sound outdoor fans with Lead ECM outdoor fan for modulating head pressure control
Inverter scroll compressor
Unit cannot be mounted in an enclosed space.
Leak detection sensors
Electronic expansion valve

Important Notes:
Capacity is based on incoming voltage selected. If incoming power varies it may affect the capacity of your selection.
Air-Source Heat Pump heating may go into defrost or extended lock out (until weather pattern changes) during high humidity, precipitation events or in the case of a refrigerant leak. Without supplemental heat, supply discharge temperature may be extremely low during defrost or during a refrigerant leak mitigation event. To avoid this, consider selecting supplemental heat.
ASHP in heating mode may operate to stay within the compressor envelope depending on outside air conditions, the LAT may not be able to operate above 85F at this time.

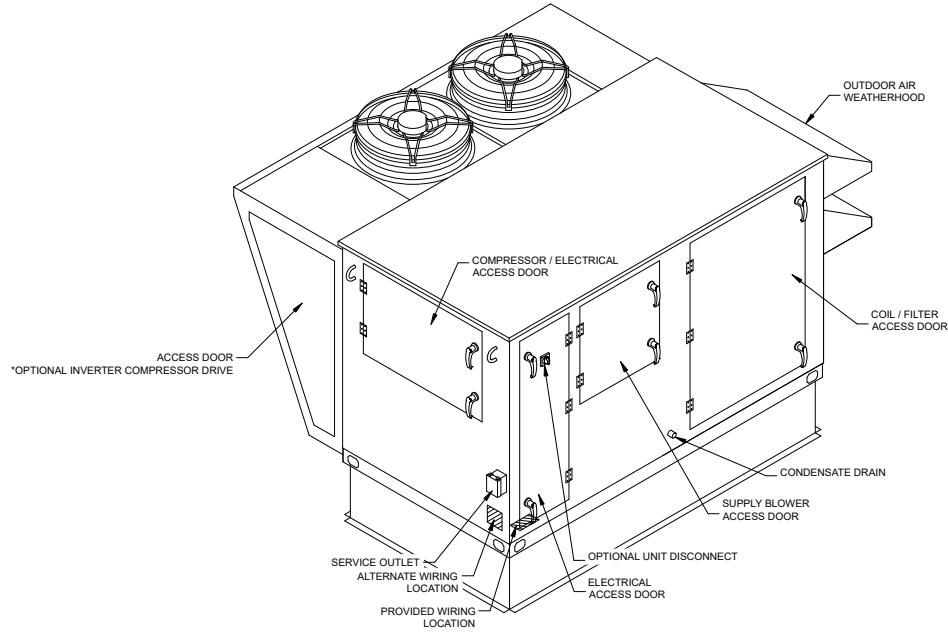
Secondary Heat Performance

Secondary Heat Specifications							
Type	Capacity (kW)	Full Load Amps (FLA)	Capacity Control	Performance (w/ASHP)		Performance (w/o ASHP)	
				EAT (F)	LAT (F)	EAT (F)	LAT (F)
Electric	50.0	62.8	Modulating (SCR)	62.8	145.9	15.9	99.0

Unit Details
Open coil heating elements
High grade Nickel-Chrome alloy coils
SCR controller
Unit controller maximum allowable supply discharge air set point is 100F (37.8C)
Heat pump and electric heater can operate simultaneously. Unit MCA/MOP will be sized for concurrent operation of all loads

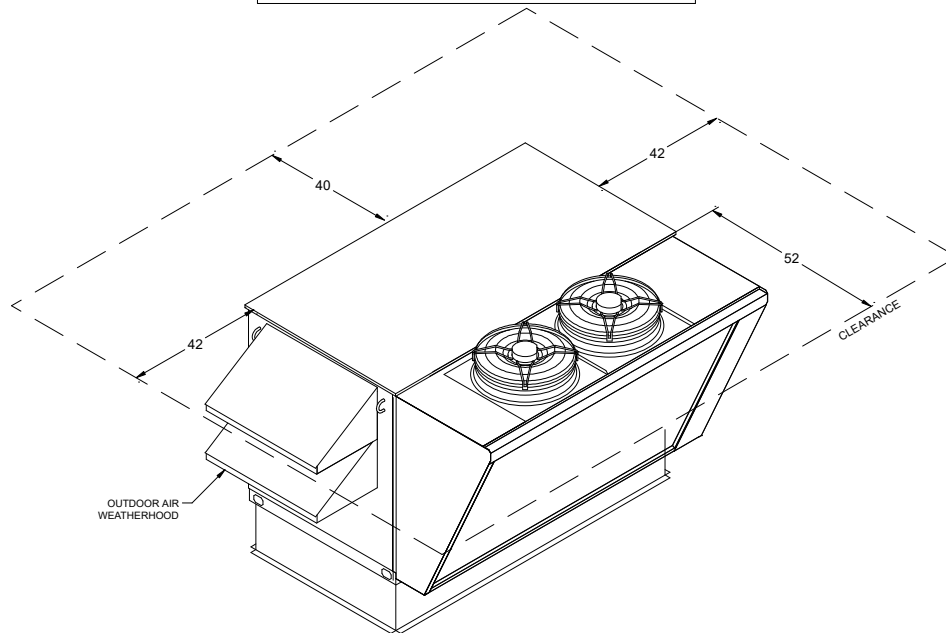
Isometric Drawings

Component Layout



Back Right Isometric

Service Clearances

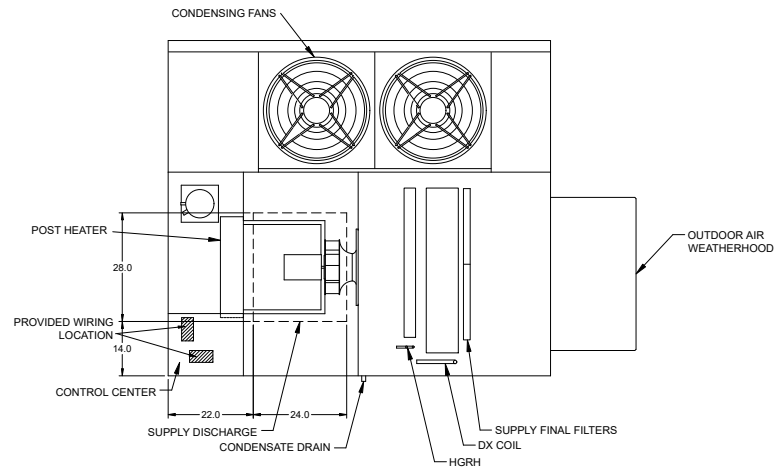
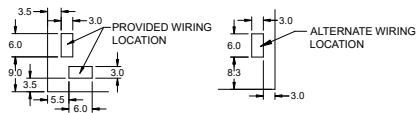


Front Left Isometric

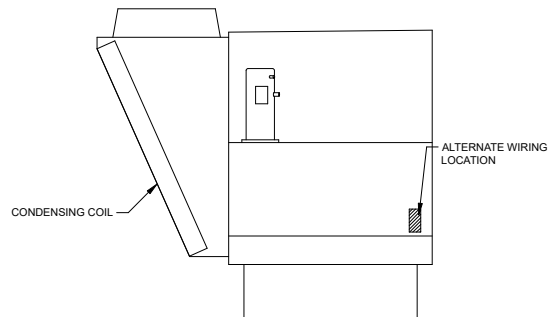
Overview Drawings

Dimensional Overview

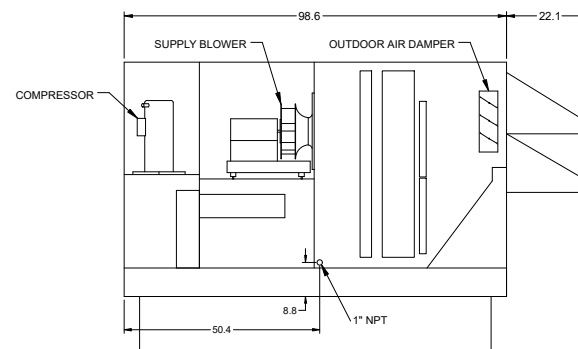
Electrical Connections



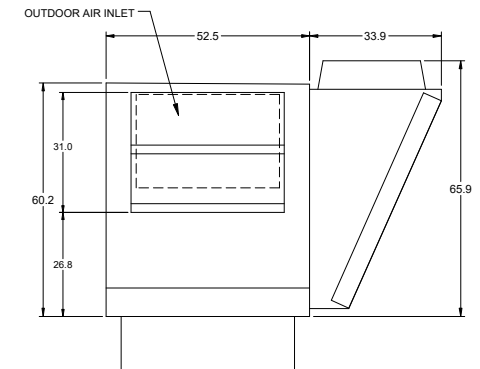
Plan



Left End

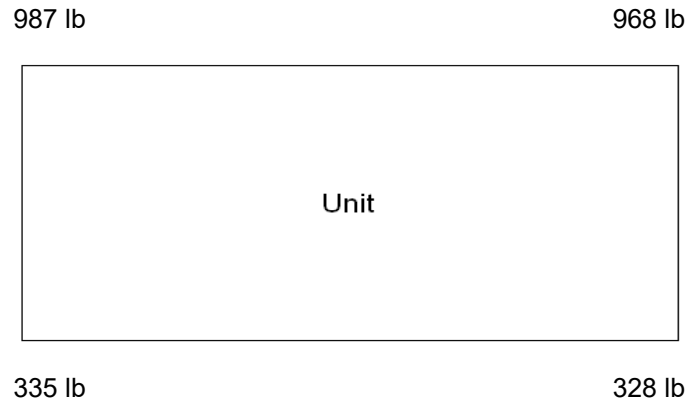


Elevation



Right End

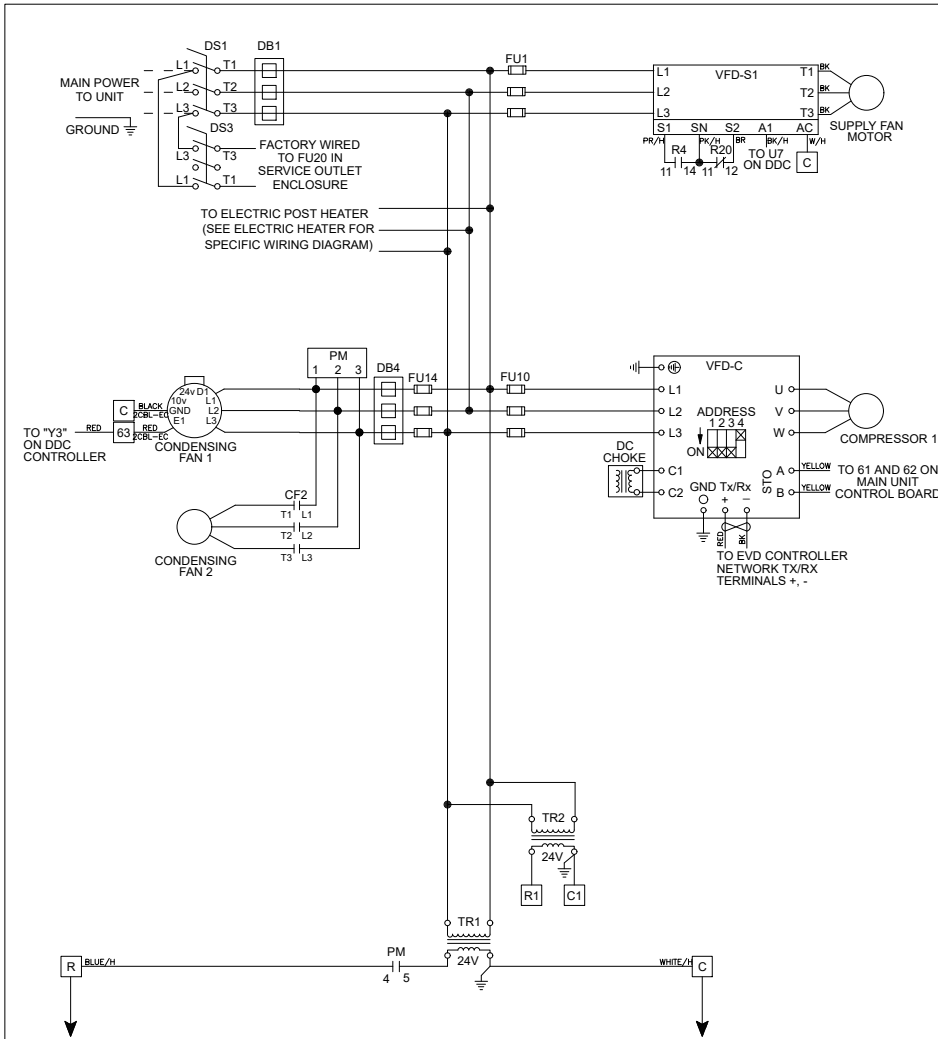
Unit Corner Weights



Note

Estimated corner weights are shown looking down on unit and the outside air intake will be on the right. Weights are applied at the base of the unit. Images not drawn to scale.

Wiring Diagram



Wiring Diagram Code:

G12Q2A0XB40C05X00NJ23F0700XH32

CAUTION

UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES

USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.
75° C FOR TERMINALS RATED 100 AMPS OR MORE.
FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.
FIELD WIRED - - - - -
FACTORY SUPPLIED AND WIRED _____

WIRE COLOR CODE

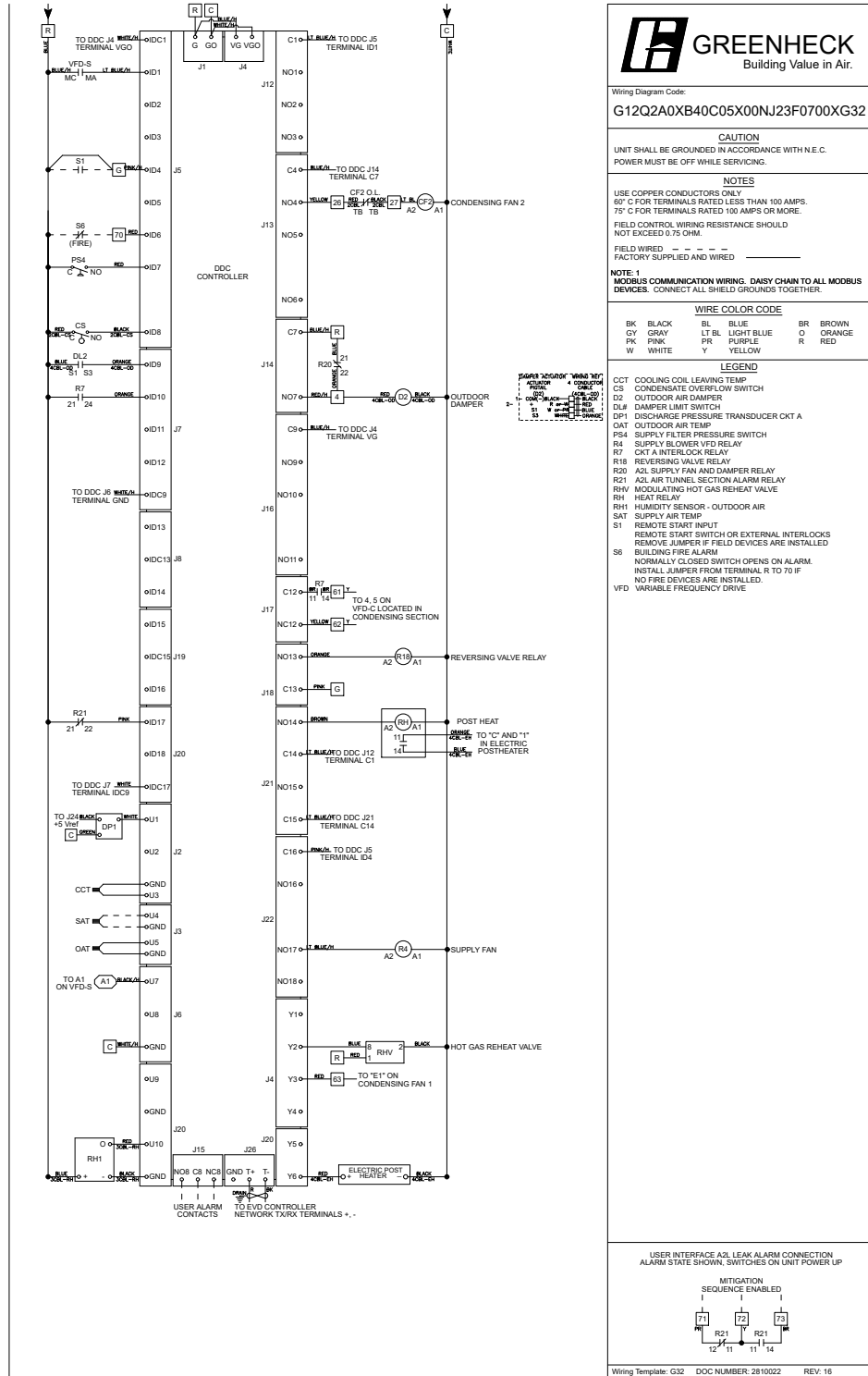
BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND

DB#	POWER DISTRIBUTION BLOCK
DS	DISCONNECT SWITCH
FU#	FUSES
PM	PHASE VOLTAGE MONITOR
R4	SUPPLY BLOWER VFD RELAY
R20	A2L SUPPLY FAN AND DAMPER RELAY
TR#	TRANSFORMER
VFD	VARIABLE FREQUENCY DRIVE

Wiring Template: H32 DOC NUMBER: 2810022 REV: 16

Wiring Diagram 2



Wiring Diagram 3



GREENHECK
Building Value in Air.

Wiring Diagram Code:

G12Q2A0XB40C05X00NJ23F0700XL32

CAUTION

UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES

USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.
75° C FOR TERMINALS RATED 100 AMPS OR MORE.
FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.
FIELD WIRED - - - - -
FACTORY SUPPLIED AND WIRED _____

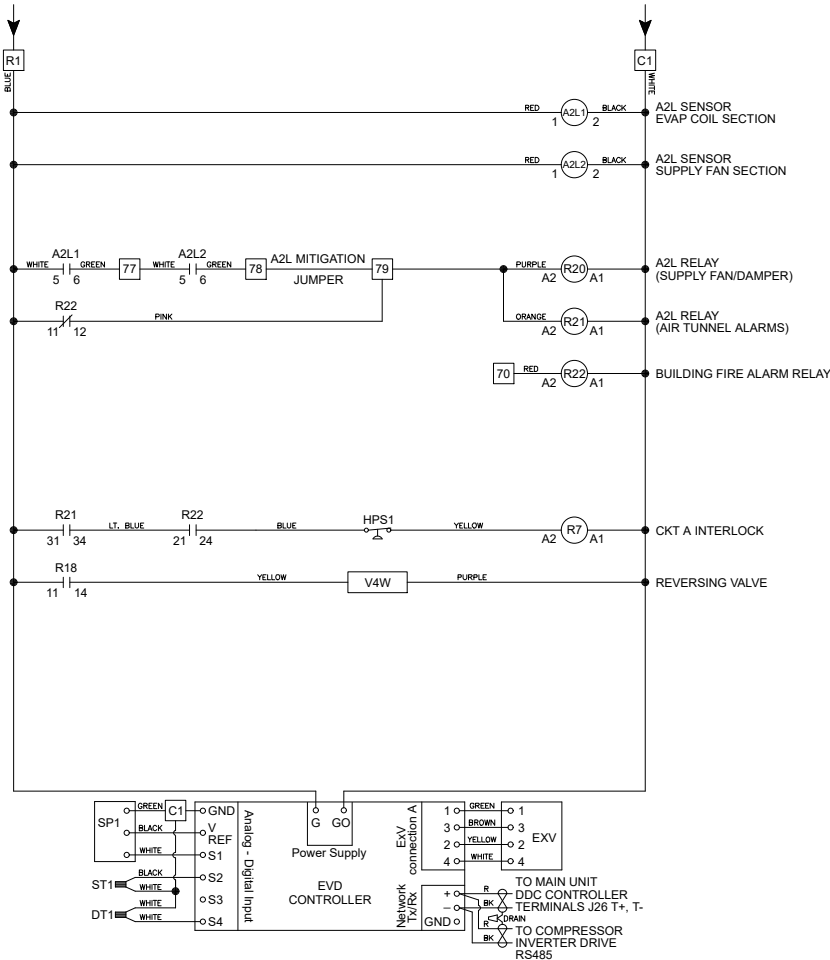
WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND

A2L# A2L REFRIGERANT LEAK SENSOR
DT1 DISCHARGE LINE TEMP CKT A
EXV ELECTRONIC EXPANSION VALVE
HPS# HIGH PRESSURE SWITCH (MANUAL RESET)
R7 CKT A INTERLOCK RELAY
R18 REVERSING VALVE RELAY
R20 A2L SUPPLY FAN AND DAMPER RELAY
R21 A2L AIR TUNNEL SECTION ALARM RELAY
R22 BUILDING FIRE ALARM RELAY
RH HEAT RELAY
SP1 SUCTION PRESSURE TRANSDUCER CKT A
ST1 SUCTION LINE TEMP CKT A
V4W 4 WAY REVERSING VALVE

Wiring Template: L32 DOC NUMBER: 2810022 REV: 16



RV-40

Factory Controller Sequence of Operation

FACTORY CONTROLLER: Controller shall be provided with required sensors and programming for rooftop unit. Controller shall be factory programmed, mounted and tested. Controller shall have a LCD readout for changing set points and monitoring unit operation.

UNIT START COMMAND (Unit will be enabled to start once a jumper is placed between R to G):

- Factory mounted and wired outdoor air damper actuator is powered
- Supply fan starts after after a (adj.) delay.
- Tempering options to function as described below.

UNIT STOP COMMAND (OR DE-ENERGIZED):

- Supply fan, exhaust fan and tempering options de-energized.
- Outdoor air damper actuator is spring return close.

OCCUPIED/UNOCCUPIED MODES: Shall be based on a 7-day time clock internal to the controller. The schedule shall be set by the end user. When a user initiates an override input, the controller will switch from unoccupied to occupied mode. The controller will return to the scheduled occupied/unoccupied mode after the override time has expired. If internal time clock is disabled, a remote contact or a BMS can control the occupied/unoccupied mode.

Occupied Mode:

- Damper control per below.
- Supply fan ON.
- Heating per below.
- Cooling per below.

Unoccupied Mode (Unit Off): Unit remains off when in unoccupied mode.

- Supply fan OFF
- Tempering OFF
- Outdoor air damper closed.

MORNING WARMUP/COOL DOWN: Prior to occupancy, the unit will run using the warmup or cool down sequence until the occupied set point is achieved. The heating or cooling mode must not be locked out and the space temperature is below or above set point by the unoccupied hysteresis (adj.) (This Sequence must be field configured.)

SUPPLY BLOWER SEQUENCE: The supply blower is provided with a factory mounted variable frequency drive. The supply blower speed will be controlled with the following sequence. Minimum supply fan turndown is 50% of the design maximum operation.

Constant Volume-Adj. Setpoint: The supply blower will operate at a constant speed set point (adj.) during operation.

COOLING SEQUENCE: The cooling is controlled to maintain the supply temperature set point. The mechanical cooling will be locked out when the outside air is < 55 F (adj.).

Air-Source Heat Pump: The controller will provide a modulating signal for cooling. From 0-100%, the inverter scroll will be controlled to maintain discharge temperature. The electronic expansion valve will modulate to maintain 10 F of superheat.

Modulating Hot Gas Reheat Sequence: During dehumidification the modulating HGRH is controlled to maintain the supply temperature set point.

Modulating Hot Gas Reheat: The controller will modulate the hot gas reheat valve with a 0-10 V signal to maintain the supply temperature set point (adj.).

PRIMARY HEATING SEQUENCE: The air-source heat pump is controlled to maintain the supply temperature set point. Heating will be locked out when the outside air is > 80 F (adj.). The air-source heat pump will be locked out when outside temperatures are < 0 F.

Air-Source Heat Pump: The controller will provide a modulating signal for heating. From 0-100%, the inverter scroll will be controlled to maintain discharge temperature. The electronic expansion valve will modulate to maintain 10 F of superheat.

SECONDARY HEATING SEQUENCE: If the air-source heat pump cannot meet the supply temperature set point, the secondary heating source will activate and work in conjunction with the air-source heat pump.

Electric Heater: The controller will modulate an electric heater to maintain the supply temperature set point (adj.).

TEMPERATURE CONTROL SEQUENCE: The unit will maintain the supply air discharge setpoint per the following. Adjustable locally or by BMS.

Supply Discharge Temperature Control: The supply setpoint will be a constant temperature setpoint from the controller (adj.). Adjustable locally or by BMS.

BUILDING FREEZE PROTECTION: If the supply air temperature drops below 35 F (adj.) for 300s (adj.), the controller will de-energize the unit and activate the alarm output.

UNIT LEAK DETECTION AND MITIGATION: The unit will be equipped with refrigerant leak detection sensors. These sensors along with the following sequence of operation are required per UL60335-2-40.

Refrigerant Leak Detected In Air Tunnel: If a refrigerant leak is detected in the air tunnel, the supply fan will operate at minimum airflow requirement, outside air damper will be opened, and compressors are disabled to reduce leakage rate. This operation is required in order to move stagnant refrigerant from within the unit, duct, and space ensuring proper dilution of the refrigerant. This operation is required even if the unit is called to be off. After leak detection is cleared, the unit will go back to normal operation. Exception to this operation is when the unit is receiving an active fire alarm signal at the unit controller. If unit controller is receiving a fire alarm input, the unit will not operate the leak mitigation supply fan sequence.

Dry alarm contacts available to allow the building (by others) to perform external mitigation actions when necessary. These by other external actions include opening of zone dampers in the ductwork, disabling duct mounted electric resistance heaters, and/or enabling additional mechanical ventilation if required per ASHRAE 15.

ALARMS INDICATION: The controller will display alarms and have one digital output for remote indication of an alarm condition. Possible alarms include:

Supply and Exhaust Air Alarm: The controller monitors the proving switch on each blower and sends an alarm in the case of either blower proving switch not engaging.

Temperature Sensor Alarm: The controller sends an alarm in the case of a failed air temperature sensor.

ACCESSORIES: The following accessories will be included with the unit to expand the functionality or usability of the controller.

DDC Remote Interface: Factory provided, field mounted interface panel that will be wired to the main controller for monitoring and remote adjustments of set points.

Phase and Brownout Protection: Factory mounted and wired component which monitors the main power coming into the unit. If a phase drops out, or if the incoming voltage exceeds the acceptable range, the component will turn off the unit to help protect the electrical systems.

Condensate Overflow Unit Shutdown: Factory mounted condensate overflow switch wired to the unit controller. The controller monitors the condensate overflow switch. If the water level in the drain pan reaches a certain level, the unit will shutdown and send an alarm.

Damper End Switch: Damper end switched will be provided to ensure the supply and exhaust fans do not enable until the dampers are proven open.

Warranty Statement for Dedicated Outdoor Air Systems (DOAS)

Unit Warranty

Greenheck warrants the equipment to be free from defects in material and workmanship for a period of 18 months from ship date. Initial startup must be completed within six months of the shipment date, and a startup report must be submitted to Greenheck.

Compressor Extended Warranty

Greenheck warrants the refrigerant compressor(s) to be free from defects in material and workmanship for a period of 5.5 years from the shipment date.

Warranty Notes

Any component which proves defective during the warranty period will be repaired or replaced at Greenheck's sole option when returned to our factory, transportation prepaid. All warranties do not include labor costs associated with troubleshooting, removal, or installation. Greenheck will not be liable for any consequential, punitive, or incidental damages resulting from use, repair, or operation of any Greenheck product. These warranties are exclusive and are in lieu of all other warranties, whether written, oral, or implied, including the warranty of merchantability and the warranty of fitness for a particular purpose. No person (including any agent or salesperson) has authority to expand Seller's obligation beyond the terms of this warranty, or to state that the performance of the product is other than that published by Seller.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

GKD Roof Curb

Model: GKD-45.9/91.9-G14

Curb Height (in.)	Curb Length (in.)	Curb Width (in.)	Material	Finish Type	Duct Adapter	Curb Weight (lb)
14	91.9	45.9	Galvanized	Galvanized	Yes	164

Standard Construction Features:

All dimensions shown are actual and in units of in.'s

If unit is selected with side or end discharge/return, there will not be bottom connections supplied with the curb.

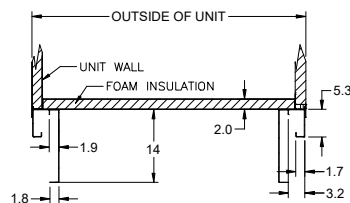
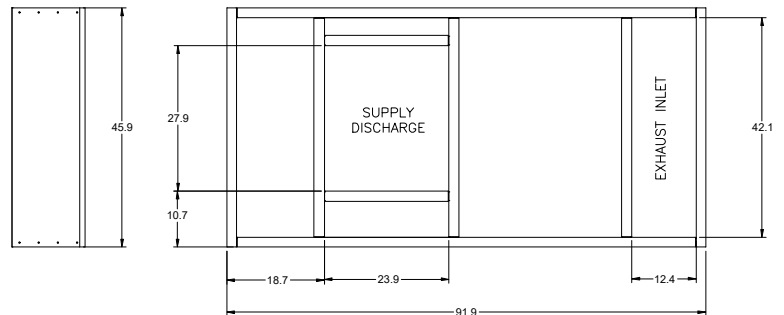
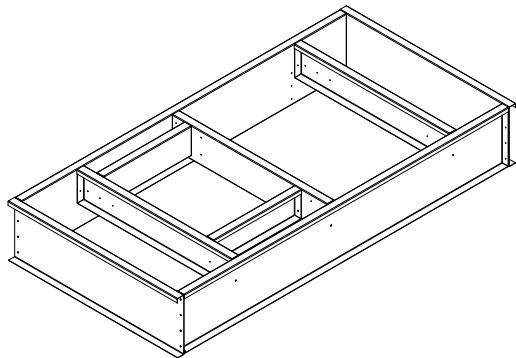
14 gauge galvanized steel (perimeter channels).

14 gauge galvanized steel (interior channels).

Ships knocked down for field assembly.

Curb insulation to be provided by others.

Curb Detail



HERESITE P-413 BAKED PHENOLIC EPOXY

DEFINING PERFORMANCE IN EVERY ENVIRONMENT

Since 1935 Heresite Protective Coatings has been an innovator in the development of high-performance specialty coatings. In 1964, Heresite was the first company to develop and apply direct-to-metal thin film coatings to aluminum-finned, copper tubed heat exchangers for the HVAC/R industry. These unique coatings increase equipment performance and service life while having less than 1% heat transfer loss. Heresite still remains the performance leader in protective coatings for air conditioning and refrigeration systems in salt air and industrial applications throughout the world.

P-413 BAKED PHENOLIC EPOXY

- A thin film high-performance phenolic epoxy coating developed specifically for heat exchangers and related equipment.
- Made for the most severe chemical and C5 offshore environments.
- The performance leader in HVAC/R coatings made for new or unfinished metal.
- Features dense cross linking with superior chemical and salt air resistance providing stable heat transfer.
- Appreciably increases the service life of heat exchange equipment exhibiting superior flexibility and corrosion resistance.
- After baking it can be touched up with VR-554T Brown air dry phenolic aerosol spray.

P-413 SPECIFICATIONS

After proper surface preparation the coil shall receive a uniform coating on all surfaces, including fin edges. Multiple coats are applied by immersion or flow coating resulting in dry film thickness of approximately 1.0 mil. If the coils are to be subjected to direct ultraviolet (UV) exposure, consider spray-applied UC-55XX UV-resistant topcoat. Please read and follow detailed application instructions on page 4 & 5.

See the Heresite Chemical Resistance Guide for performance results in hundreds of chemical environments.

(<https://www.heresite.com/chemical-resistance-guide/>).

When baking is not an option consider HereShield spray applied air dry coatings for salt air and mild to medium chemical environments.

P-413 TYPICAL PROPERTIES (@ 1 MIL DFT)

Salt Spray: ASTM B-117: 30,000 hours

SWAAT: ASTM G85-11 Section A.3: Passed 1,000 hours using pressurized coil (see page 2 for results)

Cyclic Weathering: ISO 20340 Offshore Standard: Passed (4,200 hours)

Performance Testing: ISO 12944-6 C5 I/M: Passed C5-M high durability and C5-I high durability

UV-C Exposure: Passed 1,500 hours

Heat Transfer Reduction: <1% as applied for heat transfer components

Humidity: ASTM D-4585: 5,000+ hours

Simulated Sea Water Resistance: 2,000 hours

Solvent Resistance: ASTM-D5402: 100 acetone double rubs

Cross-hatch Adhesion: ASTM D-3359: 5B

Mandrel: ASTM-D522: >1/4 inch

Impact: ASTM D-2794: 160 lb/inch steel; 40 lb/inch aluminum

pH Range (14-day liquid spot test): 2.4–12.6

Temperature Cycling (4 hours at –75°C; 4 hours at 190°C): 4B–5B adhesion after 5 cycles

Dry Heat Resistance (4 hours at 200°C; 20 minutes at 232°C): 4B–5B adhesion after 5 cycles

Dry Film Thickness: ~1 mils

Hardness: ASTM D3363: 5–6H

Gloss: > 20 on 60-degree meter (topcoat dependent) **Abrasion Resistance:** 30–40 mg loss per 1,000 cycles

Blowing sand (MIL-STD-810-H Method 510.7) Passes

Dielectric Strength [ISO2376:2010(e)]: 286 volts per mil of thickness

Microchannel Compatible

Meets FDA 175.300 for indirect food contact

Meets MIL Spec: MIL-C-18467, MIL-E-480 and MIL-STD-883 Method 1101

Meets Other Specs: Honeywell MC 7200-01 and GE F50T17

Thermal Conductivity: At approximately 2 mils thickness, Thermal Conductivity is less than 1.0 w/mK



NSF Certified – ANSI 51 Certification of Coatings for Food Zone – Non-Contact

SWAAT RESULTS



Bare 1,000 hour SWAAT



P-413 1,000 hour SWAAT



P-413 + topcoat 1,000 hour SWAAT

PRODUCT DESCRIPTION

Baked Phenolic Epoxy

RECOMMENDED USES

Heresite P-413 is a high-performance coating used principally for heat transfer components and parts — especially air conditioning and refrigeration systems that operate in moderate to severely corrosive environments, including both coastal and/or industrial applications. This phenolic epoxy has the advantage of dense cross linking and is therefore highly corrosion resistant even when applied as a very thin film.

CHEMICAL RESISTANCE

P-413 is chemically resistant to a wide range of acids, solvents, and inorganic salts. Please review the chemical resistance guide for further information.

PACKAGING INFORMATION

P-413 is available in one gallon, five gallon and 54 gallon drum quantities.

THINNERS AND CLEANUP

Recommended use of Heresite S-275.

STORAGE CONDITIONS

Coating should not be stored longer than 6 months. Coating should be stored in a clean, dry environment at 50–75°F. Keep out of direct sunlight. Avoid excessive heat and keep from freezing.

PHYSICAL PROPERTIES

Solids by weight: Approximately 73%

Solids by volume: Approximately 57%

Pot life: NA

Mixing Ratio by Volume: NA 1 component

Shelf life: 6 months

Color: Brown

VOC CONTENT

2.25 lbs/gal (270 g/L) as supplied

FILM THICKNESS

For heat transfer, a 2-coat immersion process will typically yield a dry film thickness of 1.0–2.0 mils (25–50 microns). For other parts, please contact Heresite.

COVERAGE

Theoretical coverage is 800 square feet per gallon per dry mil. Coverage rates are estimates and make no allowance for material loss. Actual rates will vary dependent on application method, surfaces, etc.

SURFACE PREPARATION

All surfaces must be clean, sound, and free of any oils, dirt, grease, wax, and any other contamination that may interfere with coating adhesion.

In general, the surface should be cleaned by solvent or a cleaner at elevated temperature followed by a clean water rinse. Rinse water shall have a conductivity of lower than 500 microsiemens and a neutral pH (7.0–8.0). All surfaces must be dried prior to application of coating.

In cases where there is a large amount of contamination or heat-treated steel, a commercial blast is acceptable in accordance with NACE #3 or SSPC-SP-6-63 specifications. Surface profile or anchor pattern shall be 20–25% of the recommended dry film thickness.

THINNING

Reduce P-413 with S-275 solvent to 15 – 17 seconds on ISO Dip 3 mm Mini Cup (13-13.5 seconds for spray). This requires approximately a 1:1 dilution by volume.

The amount of thinner required is dependent upon temperature, ventilation, humidity, application type and desired film thickness.

APPLICATION

Application is specific to heat transfer components, for other parts — please contact Heresite.

Immersion Application:

1. Consult SDS prior to use.
2. Tank mixing should be adequate to create enough mixing, able to witness surface movement. Mixing should not be turbulent, no waves in the tank. Excessive mixing will cause foam generation.
3. Do not apply if temperature is less than 5°F above dew point, or if temperature is below 45°F.
4. Consult Heresite for tank and pump recommendations.
5. Ensure that the part is prepared for immersion, one will have a low point for drainage.
6. Immerse the cleaned part for 15 seconds in the reduced P-413.
7. Upon removal of the part from the coating, apply air pressure (70-100 PSI) through the fins to help move the coating throughout the coil. Brushing maybe required.
8. Air dry a minimum of 15 minutes with ventilation prior to introducing heat.
9. Typically, a two-coat immersion process is required to achieve 1.0 to 1.5 mil DFT. An intermediate bake is required between coats — see baking schedule.
10. It may be deemed desirable to apply a final aesthetic spray. This can be accomplished immediately after the final immersion is accomplished and prior to final bake.
11. During immersion application, the viscosity must be maintained and monitored. It is recommended that the viscosity be checked every hour to ensure compliance with the specification of 15 – 17 seconds. Additional solvent and coating can be added to adjust viscosity as needed.

Flooding / Flow coat Application:

1. Consult SDS prior to use.
2. The reservoir containing the paint needs to be under continual agitation .
3. Do not apply if temperature is less than 5°F or C above dew point, or if temperature is below 45°F (7°C)
4. Cork/tape all tube openings to prevent coating flowing to interior tubes. Check after each application to assure openings remain sealed.
5. Reduce P-413 with S-275 solvent according to the thinning instructions on page 3. It was noted that at lower viscosities, multiple coats were required to achieve the same internal appearance. The higher the viscosity, the higher the tendency to bridge fins.
6. Lay coil in a horizontal position elevated 25-30 degrees on a flow coat table with the fins vertical to ensure coverage of all bare metal.
7. Use a low pressure/high volume pump to flow the paint over the coil. Care must be taken to achieve uniform/ complete coverage.
8. Apply paint to both sides of the coil by turning the coil over and laying it on the coated side.
9. Lift coil to allow draining with fins in a horizontal position. Use compressed air (70-100 PSI) through the fins to help move the coating throughout the coil.
10. It may be necessary to brush out coating to remove drips/runs/areas of excessive coverage.
11. A final light cosmetic spray is recommended after flooding /flow coat process.
12. During application, the viscosity must be maintained and monitored. It is recommended that the viscosity be checked every hour to ensure compliance with the specification listed above. Additional solvent and coating can be added to adjust viscosity as needed.
13. Paint can be recirculated by catching it in a flow coat 'table' with drainage into the can holding the liquid P-413.

Spray Application for Final Aesthetic Spray:

1. Consult SDS prior to use.
2. Do not apply if temperature is less than 5°F above dew point, or if temperature is below 45°F.
3. Use standard production type spray equipment (conventional, HVLP, airless, etc.). A few starting recommendations can be found below:

Guns	Fluid	Air
DeVilbiss JGA-510	E	46MP
Binks #2100	67-SS	46-21MD-2 or 3
Binks #95	66-SS	46-21MD-2 or 3
Graco Air Pro HVLP		

4. Spray viscosity will be dependent on the type of equipment being used. It has been seen that spraying at immersion viscosity is very effective.
5. Spray equipment: always flush spray equipment with solvent to clean prior to applying coating.
6. The air supply must be uncontaminated. Adjust air pressure to approximately 50 PSI (3.5 bar) at the gun and provide approximately 50 PSI (3.5 bar) at pressure pot. Adjust spray gun by first opening liquid valve and then adjust air valve to give approximately an 8"-12" fan (20-30 centimeters), holding gun perpendicular to the surface at a distance of 4"-6" (10-16 centimeters).
7. To minimize sagging and dripping, apply a tack coat (a light first pass with maybe 30-40% coverage) first by turning down the liquid and holding the gun 8"-12" (20-30 centimeters) from the surface.
8. Allow it to flash off for approximately a minute, but not long enough to allow the film to completely dry.
9. Apply 3-4 crisscross multi-passes maintaining a wet appearing film.
10. Air dry a minimum of 15 minutes with ventilation prior to introducing heat.
11. Typically, a one coat process is required to achieve 0.5 to 1.0 mil DFT.

Spray-Application for Higher Film Build – 4 to 6 mil:

1. Consult SDS prior to use.
2. Do not apply if temperature is less than 5°F above dew point, or if temperature is below 45°F.
3. Use standard production type spray equipment (conventional, HVLP, airless, etc.). A few starting recommendations can be found below:

Guns	Fluid	Air
DeVilbiss JGA-510	E	46MP
Binks #2100	67-SS	46-21MD-2 or 3
Binks #95	66-SS	66-SD
Graco Air Pro HVLP		

4. Spray viscosity will be dependent on the type of equipment being used. It has been seen that spraying at immersion viscosity is very effective (13-13.5 seconds ISO Dip 3 mm Mini).
5. Spray equipment: always flush spray equipment with solvent to clean prior to applying coating.
6. The air supply must be uncontaminated. Adjust air pressure to approximately 50 pounds at the gun and provide 15-20 pounds at pressure pot. Adjust spray gun by first opening liquid valve and then adjust air valve to give approximately an 8"-12" fan, holding gun perpendicular to the surface at a distance of 12".
7. Apply a mist bonding pass.
8. Allow it to flash off for approximately a minute, but not long enough to allow the film to completely dry.
9. Apply 3-4 crisscross multi-passes maintaining a wet appearing film. Allow a minimum of 10 minutes to allow the slow solvents to evaporate. Then apply another 2-3 crisscross multi-passes.
10. Air dry a minimum of 15 minutes with ventilation prior to introducing heat.
11. Intermediate bake at 130°C (metal temperature) for a minimum of 10 minutes.
12. Repeat steps 7-10.
13. Final bake per instructions within the bake schedule.
14. Typically, a two to three coat process is required to achieve 4.0 to 6.0 mil DFT.

BAKE SCHEDULE

Intermediate Bake:

1. 90°C (metal temperature) for a minimum of 10 minutes.
 - a. To decrease the bake time, a maximum temperature of 130°C may be used.

Final Bake:

1. "Normal" Bake:
 - a. 90°C (metal temperature) held for 10 minutes, then increased to 160°C. 160°C (metal temperature) held for 15 minutes, then increased to 190°C. 190°C (metal temperature) held for 45 minutes.
2. "Soft Solder" Bake:
 - a. 90°C (metal temperature) held for 10 minutes, then increased to 160°C. 160°C (metal temperature) held for 130 minutes.

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKERS MUST WEAR FRESH AIR LINE RESPIRATORS. PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKERS SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied. We guarantee our products to conform to strict quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices are subject to change without prior notice. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY THE SELLER, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

HERESITE PROTECTIVE COATINGS
822 S 14th St. Manitowoc, WI 54220
920-684-6646
sales@heresite.com
heresite.com

Effective date: 08/19/24

HERESITE

PROTECTIVE COATINGS®

LLC

Chemical Resistance Guide

Test data for the products published in this guide are determined by laboratory testing of coated panels with the chemical being tested. Additional information on the coating's resistance is achieved through the coating's history in actual service environments.

Temperature and concentration data are not necessarily the maximum operating conditions. They are the temperature and concentration at which the specified coating system has been tested. The coating system may be suitable for higher temperatures and different concentrations, but additional information or testing would be required.

Concentration is not shown for all chemicals listed in the chemical resistance guide. In many cases, the concentration is inherent to the particular material. For example, if the chemical listed is a solid, the concentration is 100%. There are other cases where the concentration is included in the description of the chemical that was tested. If a specific question about concentration is not resolved by these guidelines, please contact Heresite for further assistance.

Date: February 2022
(supersedes all previous copies)

To the best of our knowledge, the technical data contained herein is true and accurate at the date of insurance and are subject to change without prior notice. User must contact laboratory to verify corrections before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to strict quality control. We assume no responsibility for coverage, performance, or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices and cost are subject to change without prior notice. **NO OTHER GUARANTEE OF ANY KIND IS MADE BY SELLER, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OR LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Key to the Guide

A	Coating is resistant, for continuous immersion, against attack from the chemical listed.
B	Coating is resistant against attack from fumes of the chemical listed. For immersion service of the chemical, please refer to a coating with an A or LR listed or contact Heresite Protective Coatings.
C	Coating will provide the necessary 72 hours resistance required for secondary containment but is not recommended for continuous immersion.
LR	Limited Recommendation - contact Heresite Protective Coatings, Inc. for assistance.
NR	Coating is not recommended for the service conditions.
Blank	Coating has insufficient test data for the service conditions.

Coatings are continuously being tested in a wide range of service conditions. If your condition is not among the ones listed, please contact Heresite Protective Coatings at 920-684-6646 for assistance.

Coatings Included in This Guide

P-403L	High bake phenolic. P-403L offers excellent resistance to solvents, acids and salts, including 70-98% sulfuric acid at temperatures up to 120F.
P-403L/L-66L	High gloss phenolic system designed for use where abrasion and release properties are required. This system utilizes P-403L as the primer and L-66L as the topcoat.
P-413	Modified baked phenolic designed for HVAC equipment and light gauge metal. In addition to marine and salt air environments, the P-413 family of coatings will withstand exposure to an extensive variety of corrosive and chemical fumes and condensate.
VR-514	Air dry phenolic. Excellent for resistance to corrosive fume atmospheres and is particularly good in marine and salt air environments. Typical applications include swimming pools, wastewater, marine environments, and as a general maintenance coating.
UC-5500 Series	Polyurethane. Formulated as a top coat for other Heresite coatings, with outstanding UV resistance and excellent weathering qualities, along with good flexibility and abrasion resistance.

For further information, please contact Heresite Protective Coatings, Inc.



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Chemical Synonyms

Common Name

Alum
Barite
Baking Soda
Bleach
Calcite
Caustic
Caustic Potash
Chalk
Cupric, Cuprous
Dental Gas
Diuretic Salt
Dry Ice
Epsom Salt
Ferric, Ferrous
Graphite

Chemical Name

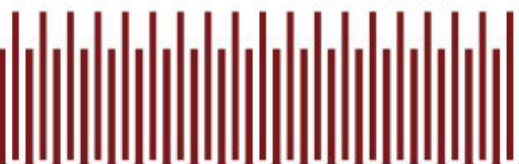
Aluminum Sulfate
Barium Sulfate
Sodium Bicarbonate
Sodium Hypochlorite
Calcium Carbonate
Sodium Hydroxide
Potassium Hydroxide
Calcium Carbonate
Copper II & Copper I
Nitrogen I Oxide
Potassium Acetate
Carbon Dioxide
Magnesium Sulfate
Iron III & Iron II
Carbon

Common Name

Laughing Gas
Lime
Lye
Magnesia
Methylene Bromide
Methylene Chloride
Muriatic Acid
Potash
Phenol
Phosgene
Pyrite
Soda Ash
Stannic, Stannous
Sulphate
Table Salt

Chemical Name

Nitrogen I Oxide
Calcium Oxide
Sodium Hydroxide
Magnesium Oxide
Methane Dibromide
Methane Dichloride
Hydrochloric Acid
Potassium Carbonate
Carbolic Acid
Carbonyl Chloride
Iron Disulfide
Sodium Carbonate
Tin
Sulfate
Sodium Chloride



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

Chemical	Conc.	Temp	P-403L	P-403L/ L-66L	P-413	VR-514
			High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Acetaldehyde		60°F/21°C	A		B	NR
Acetaldehyde		100°F/37°C	A		B	NR
Acetic Acid	5%	100°F/37°C	LR		B	
Acetic Acid	10%	70°F/21°C	LR	LR	B	NR
Acetic Acid	10%	100°F/37°C	LR	LR	B	NR
Acetic Acid	10%	150°F/65°C	B	B	B	NR
Acetic Acid	25%	70°F/21°C	LR	LR	B	NR
Acetic Acid	25%	150°F/65°C	B	B	B	NR
Acetic Acid	50%	100°F/37°C	LR	LR	B	NR
Acetic Acid	50%	120°F/48°C	LR	NR	B	NR
Acetic Acid	50%	150°F/65°C	LR	NR	B	NR
Acetic Acid	56%	100°F/37°C	B	B	B	NR
Acetic Acid	100%	100°F/37°C	B	B	B	NR
Acetic Acid	100%	120°F/48°C	B	B	B	NR
Acetic Acid	100%	150°F/65°C	B	B	B	NR
Acetic Acid, Glacial		70°F/21°C	B	B	B	
Acetic Acid, Vapors		350°F/176°C	A	A		NR
Acetic Acid 100% & ½% Sulfuric Acid		77°F/25°C	B	B		
Acetic Anhydride	100%	70°F/21°C	A	A	B	NR
Acetic Anhydride/ Acetic Acid (50%/50%)		175°F/79°C		NR		
Acetone		70°F/21°C	A	A	B	NR
Acetone		100°F/37°C	A	A	B	NR
Acetone		134°F/56°C	A	A	B	NR
Acetophenone		100°F/37°C	A			
Acetylene		150°F/65°C	A	A	B	B
Acid Copper Bath		150°F/65°C			B	B
Acid-Klenz (Klenzode Products)		100°F/37°C	A			
Acrylamide		100°F/37°C	A			
Acrylic Latex 103-100		150°F/65°C	A	A	B	
Acrylic Syrup		100°F/37°C	A			
Acrylonitrile		70°F/21°C	A	A	B	
Acrylonitrile		171°F/77°C	A	A		
Activated Carbon, Slurry		70°F/21°C	A			
Adipic Acid/Ethyl Alcohol 60%/40%		70°F/21°C	A		B	
Agree® Shampoo	100%	150°F/65°C	A	A		
Alcohol Mash (distillery)		210°F/98°C	A	A	B	B
Alcolated Cresol		180°F/82°C	A			
Alkaline Electroplating		150°F/65°C			B	B
Alkyl Benzene		100°F/37°C	A		B	
Alkyl Chloroformate	100%	68°F/20°C	A		B	
Alkylaryl Sulfonate	2%	70°F/21°C	A	A		
Alkylaryl Sulfonate	2%	100°F/37°C	A	A		
Alkylaryl Sulfonate	100%	100°F/37°C	A	A		

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 4



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Alkylaryl Sulfonate	100%	151°F/66°C	NR			NR
Allyl Alcohol		100°F/37°C	A	A	B	
Allyl Chloride	100%	68°F/20°C	A	A		
Allyl Glycidyl Ether		70°F/21°C	A			
Aluminum Acetate	5%	100°F/37°C	A			
Aluminum Chloride	10%	150°F/65°C	B	A	B	B
Aluminum Chloride	11%	120°F/48°C	B	A	B	B
Aluminum Chloride	25%	150°F/65°C			B	B
Aluminum Chloride	100%	70°F/21°C	B	LR	B	B
Aluminum Chloride/Benzene	13%	70°F/21°C	B			
Aluminum Chlorhydrate		120°F/48°C	A	A	B	
Aluminum Fluoride	5%	100°F/37°C			B	B
Aluminum Fluoride	5%	150°F/65°C			B	B
Aluminum Nitrate	50%	70°F/21°C	B		B	B
Aluminum Oxide (in Sulfuric Acid)		120°F/48°C	A	A	B	
Aluminum Oxide (Trihydrate)		120°F/48°C	A	A	B	
Aluminum Sulfate	46½%	70°F/21°C	LR	A	B	B
Aluminum Sulfate	46½%	122°F/50°C	LR	LR	B	B
Aluminum Sulfate	46½%	200°F/93°C	LR		B	B
Aluminum Sulfate/Copper Sulfate		120°F/48°C	LR	LR	B	
Ammonia	10%	100°F/37°C	A		B	B
Ammonia	10%	113°F/45°C	A		B	B
Ammonia, Aqua	29%	100°F/37°C	A		B	NR
Ammonia, Aqua	34%	100°F/37°C	A		B	NR
Ammonium Acetate	25%	150°F/65°C	B	A	B	B
Ammonium Acetate	75%	200°F/93°C		A		
Ammonium Bifluoride		140°F/40°C	A			
Ammonium Carbonate	25%	70°F/21°C	A			
Ammonium Chloride	33%	110°F/43°C	A	A	B	B
Ammonium Diurate		100°F/37°C	A			
Ammonium Fluoride		150°F/65°C				NR
Ammonium Hydroxide	5%	70°F/21°C	A	A	B	NR
Ammonium Hydroxide	10%	100°F/37°C	LR	LR	B	NR
Ammonium Hydroxide	10%	150°F/65°C	LR	LR		NR
Ammonium Hydroxide	25%	70°F/21°C	A		B	NR
Ammonium Hydroxide	29%	70°F/21°C	A	B	B	
Ammonium Hydroxide	29%	100°F/37°C	A	NR	B	NR
Ammonium Hydroxide	29%	120°F/48°C	B	NR	B	NR
Ammonium Hydroxide	30%	150°F/65°C	B	NR		NR
Ammonium Lauryl Sulfate	100%	150°F/65°C				
Ammonium Nitrate	50%	70°F/21°C	A	A	B	B
Ammonium Nitrate	50%	212°F/100°C	A	A	B	B
Ammonium Nitrate/Urea 42%/32%		100°F/37°C	A			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 5



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Ammonium Persulfate	45%	110°F/43°C	B		B	B
Ammonium Phosphate, Monobasic	50%	70°F/21°C	A		B	B
Ammonium Stearate		70°F/21°C	A			
Ammonium Stymer Solution		70°F/21°C	A			
Ammonium Sulfamate		70°F/21°C	A	A		
Ammonium Sulfate, Liquid slurry		70°F/21°C	A		B	B
Ammonium Sulfate, Liquid slurry		200°F/93°C	A			
Ammonium Sulfate/Sodium Sulfate 6%/6%		150°F/65°C	A			
Ammonium Sulfide	40%	100°F/37°C	A		B	B
Ammonium Sulfite	50%	70°F/21°C	A			
Ammonium Thiocyanate Solution		100°F/37°C	A		B	B
Ammonium Thiosulfate	60%	100°F/37°C	A	A		
Amyl Acetate	100%	70°F/21°C	A	A	B	
Amyl Acetate	100%	100°F/37°C	A	A	B	B
Amyl Acetate	100%	150°F/65°C	A	A	B	
Amyl Alcohol		70°F/21°C	A	A	B	
Amyl Alcohol		150°F/65°C	A	A	B	
Aniline		100°F/37°C	A	A	B	B
Aniline Hydrochloride		150°F/65°C			B	B
Aqualum (Altiviva)		120°F/48°C	LR	LR	B	
Aqua regia		70°F/21°C	NR		NR	NR
Aqueous Ammonium Chloride 17% & 4% MeOH		147°F/63°C	A			
Arquad 2HT (Armour®) 75% Active		167°F/75°C	A			
Arquad and Isopropyl Alcohol		158°F/70°C	A			
Ascorbic Acid	10%	150°F/65°C	A	A		
Arsenic Acid	50%	70°F/21°C	LR			NR
Aviation Fuel		70°F/21°C	A	A	B	
Boric Acid	100%	210°F/98°C	B	A	B	B
Brake Fluid HD557		150°F/65°C	A			
Brass Plating		150°F/65°C				NR
Brine	6.7%	290°F/143°C	A		B	B
Brine	12.3%	203°F/95°C	A		B	B
Brine	12.3%	250°F/121°C	A		B	B
Brine	29.2%	100°F/37°C	A		B	B
Bromine	100ppm		B	B	B	
Bronze Plating		150°F/65°C				NR
Butadiene		70°F/21°C	A		B	B
Butadiene		150°F/65°C	A		B	B
Butane		70°F/21°C	A	A	B	B
Butane		150°F/65°C	A	A	B	B
Butene		70°F/21°C	A	A	B	
Butyl Acetate		70°F/21°C	A	A	B	NR
Butyl Acrylate		70°F/21°C	A		B	

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 6



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Butyl Alcohol	100%	150°F/65°C	A	A	B	B
Butyl Cellosolve (Glycol Ether EB)		100°F/37°C	A		B	
Butyl Phenol		210°F/98°C	A			
Butylene		70°F/21°C	A		B	B
1,3-Butylene Glycol		100°F/37°C	A		B	
Butylene Oxide		100°F/37°C	A			
Butyraldehyde	98%	70°F/21°C	A		B	
Butyraldehyde	98%	150°F/65°C	A		B	
Butyric Acid		70°F/21°C	A			
Butyrolactone		70°F/21°C	A	A	B	
Cadmium Cyanide		150°F/65°C				B
Calcium Bisulfate		70°F/21°C			B	B
Calcium Bisulfite		70°F/21°C			B	B
Calcium Bromide	100%	150°F/65°C	A	A	B	B
Calcium Carbonate	10%	150°F/65°C	A	A	B	B
Calcium Carbonate	20%	200°F/93°C	A			
Calcium Carbonate	100%	70°F/21°C	A		B	B
Calcium Chloride	50%	70°F/21°C	A	A	B	B
Calcium Chloride	70%	280°F/137°C	A	A	B	B
Calcium Chloride	100%	150°F/65°C	A	A	B	B
Calcium Cyanamide		70°F/21°C	A		B	B
Calcium Cyanide		70°F/21°C			B	B
Calcium Fluoride	25%	150°F/65°C	A		B	
Calcium Hydroxide	50%	150°F/65°C	A		B	B
Calcium Hypochlorite	30ppm	100°F/37°C	A		NR	NR
Calcium Hypochlorite	5%	70°F/21°C	NR		NR	NR
Calcium Lignosulfate	100%	150°F/65°C	A			
Calcium Lignosulfate	100%	180°F/82°C	A			
Calcium Nitrate		150°F/65°C			B	B
Calcium Sulfate		150°F/65°C			B	B
Caprylic Acid	100%	70°F/21°C	A	A	B	B
Caprylic Acid	100%	150°F/65°C	A	A	B	
Caramel Color	100%	100°F/37°C	A	A	B	B
Carbon Bisulfide		100°F/37°C	A	A	B	NR
Carbon Dioxide		70°F/21°C	A	A	B	B
Carbon Monoxide		70°F/21°C	A		B	B
Carbon Tetrachloride		70°F/21°C	A	A	B	NR
Carmel		100°F/37°C	A	A		
Casein		70°F/21°C	A		B	B
Cashew Nut Oil		70°F/21°C	A	A	B	B
Castor Oil		70°F/21°C	A		B	B
CAT ® ELC (Extended Life Coolant) Concentrate CATEC-1	100%	70°F/21°C			A	
Caustic Lime (Dehydrated)		150°F/65°C			B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 7



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Caustic Potassium (Dehydrated)		150°F/65°C			B	B
Cellosolve (Ethyleneglycol Ethylether)		100°F/37°C	A	A	B	NR
Cherry Soda (Concentrate)		70°F/21°C	A			
Chloric Acid	30%	100°F/37°C	A			
Chlorine, Fumes	100ppm	100°F/37°C	B		B	LR
Chlorine, Water	0.40%	70°F/21°C	B		B	LR
Chloral		150°F/65°C	A			NR
Chloroaniline		70°F/21°C	A			
Chlorobenzene (Anhydrous)		100°F/37°C	A			
Chlorobenzene	10%	220°F/104°C		A		
Chloroform	100%	70°F/21°C	A	A	B	NR
Chloroform	100%	144°F/62°C	A	A	B	NR
Chloropicrin		100°F/37°C	A		B	B
Chlorosulfonic Acid	100%	70°F/21°C	B	NR		
Chlorotoluene		194°F/90°C		A		
Chlorowax		100°F/37°C	A			
Chlorox ® (See also Sodium Hypochlorite)	100%	70°F/21°C	NR	NR	NR	NR
Chocolate Syrup		70°F/21°C	A		B	
Choline Chloride	70%	150°F/65°C	A	A	B	NR
Chrome Plating Bath		150°F/65°C				NR
Chromic Acid	10%	70°F/21°C	B		B	B
Chromic Acid	20%	100°F/37°C	A			
Chromic Acid	30%	70°F/21°C	B		B	NR
Chromic Acid	50%	70°F/21°C	B		B	NR
Citric Acid	25%	150°F/65°C	LR	LR	B	B
Citric Acid	50%	70°F/21°C	LR	LR	B	B
Citric Acid	50%	150°F/65°C	LR	LR	B	B
Coal Tar		150°F/65°C	A		B	NR
Cobalt Sulfate Solution	pH 6.0	170°F/21°C	A			
Coca Cola Concentrate		70°F/21°C	A	A		
Coconut Oil	100%	70°F/21°C	A	A	B	B
Coconut Oil	100%	180°F/82°C	A	A	B	B
Coke Oven Gas		150°F/65°C	A	A	B	
Collodion Solution		70°F/21°C	A	A		NR
Copper Acetate	50%	70°F/21°C	A		B	
Copper Chloride		70°F/21°C	A		B	B
Copper Cyanide		70°F/21°C	A		B	B
Copper Nitrate		70°F/21°C			B	B
Copper Plating Solution		150°F/65°C			B	B
Copper Sulfate	10%	100°F/37°C	LR	A	B	B
Copper Sulfate	10%	120°F/48°C	LR	A	B	B
Copper Sulfate	10%	150°F/65°C	LR	B	B	B
Copper Sulfate	20%	100°F/37°C	LR	A	B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 8



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Copper Sulfate	20%	120°F/48°C	LR	A	B	B
Copper Sulfate	50%	100°F/37°C	LR		B	B
Copper Sulfate	50%	150°F/65°C	LR		B	B
Copper Sulfate (Anhydrous)	100%	140°F/40°C	A	A		
Corn Mash		100°F/37°C	A	A	B	B
Corn Oil (Mazola®)		70°F/21°C	A		B	B
Corn Oil		180°F/82°C	A		B	B
Corn Syrup	100%	70°F/21°C	A	A	B	
Corn Syrup	100%	150°F/65°C	A	A	B	
Cottonseed Oil		150°F/65°C	A		B	B
Creosote		150°F/65°C	A	A	B	NR
Cresol	100%	150°F/65°C	A	A	B	NR
Crotonaldehyde	100%	70°F/21°C	A		B	
Crude Oil		150°F/65°C	A		B	B
Crude Oil @ 650PSI		200°F/93°C	A		B	
Cyanide Cadmium Bath		100°F/37°C			B	B
Cyanide Plating		100°F/37°C			B	B
Cyanide Zinc		100°F/37°C			B	B
Cyclobutane		55°F/12°C	A		B	B
Cyclohexane		70°F/21°C	A		B	B
Cyclohexanone		100°F/37°C	A		B	NR
Cyclohexene		70°F/21°C	A		B	B
Cyclopropane		70°F/21°C	A		B	B
Dawn® Dish Soap	100%	150°F/65°C	A			
Decon-Clean®	100%	70°F/21°C			A	B
Decon-Quat®	100%	70°F/21°C			A	B
Decyl Alcohol		70°F/21°C	A		B	B
Dextrose		150°F/65°C	A	A	B	B
Diacetone Alcohol	100%	70°F/21°C	A	A	B	B
Diacetone Alcohol	100%	100°F/37°C	A	A	B	B
Diacetone Alcohol	100%	120°F/48°C	A	A	B	B
Diacetone Alcohol	100%	131°F/55°C	A	A	B	B
Diallyl Amine		70°F/21°C	A			
Dibutyl Maleate		70°F/21°C		A		
Dibutylphthalate		70°F/21°C	A		B	
Dichloroacetic Acid	25%	70°F/21°C		A		
O-Dichlorobenzene		100°F/37°C	A		B	
Diesel Fuel	100%	60°F/21°C	A	A	B	B
Diesel Fuel	100%	120°F/48°C	A	A	B	B
Diethanolamine	100%	125°F/51°C	A			
Diethanolamine	100%	150°F/65°C	LR			
Diethanolamine	100%	350°F/176°C	NR			
Diethyl Phthalate	100%	176°F/80°C	A			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 9



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Diethyl Sulfate		100°F/37°C	A			
Diethylene Glycol	50%	70°F/21°C	A		B	
Diethylene Glycol	100%	100°F/37°C	A		B	
Diethylene Glycol Monobutyl Ether (Glycol Ether DB)		100°F/37°C	A		B	
Diethylenetriamine		70°F/21°C	A	A		
Difluorophosphoric Acid		70°F/21°C	NR			
Dihydrogenated Tallow Dimethylammonium Chloride		167°F/75°C	A			
Dimethyl Ethanolamine (tech grade)		70°F/21°C	A			
Dimethyl Phthalate		70°F/21°C	A		B	B
Dimethyl Propane		70°F/21°C	A		B	
Dimethyl Sulfoxide (DMSO)		70°F/21°C	A			
Dimethyl Sulfoxide (DMSO)		302°F/150°C	NR			
Dimethylamine		100°F/37°C	A			NR
Dimethylamine (Anhydrous)		100°F/37°C	A			NR
Dimethylformamide		70°F/21°C	A			
Dioctyl Adipate		100°F/37°C	A			
Dioctyl Phthalate Monomeric		100°F/37°C	A	A		
Dioctyl Phthalate Monomeric		140°F/40°C	A	A		
Diphenol Amine		150°F/65°C	A			
Dipropylene Glycol	5%	100°F/37°C	A	A	B	
Dipropylene Glycol	100%	150°F/65°C	A	A	B	
Dipropylene Glycol Monomethyl ether (DPM)		100°F/37°C	A	A	B	
Disodium Phosphate	5%	70°F/21°C	A	A		B
Dodecylbenzene Sulfonate		125°F/51°C	A		B	B
Dodecylbenzene Sulfonate (Anhydrous)		125°F/51°C	A			
Dolchem®	100%	150°F/65°C	A			
Dow® heavy duty oven cleaner	100%	70°F/21°C	LR	NR		
Dow® heavy duty oven cleaner	100%	100°F/37°C	NR	NR		
Dowtherm		70°F/21°C			B	B
Emulsion asphalt	100%	70°F/21°C				NR
Epichlorohydrin		100°F/37°C	A			
Ethane	100%	70°F/21°C	A	A	B	B
Ethanol Amine		70°F/21°C		A		
Ethyl Acetate	100%	100°F/37°C	A	A	B	NR
Ethyl Acetate	100%	120°F/48°C	A	A	B	NR
Ethyl Acetate	100%	150°F/65°C	A	A	B	NR
Ethyl Acetate	100%	171°F/77°C	A	A	B	NR
Ethyl Acetoacetate		70°F/21°C	A	A		
Ethyl Acrylate		70°F/21°C	A		B	
Ethyl Alcohol (Ethanol)	50%	100°F/37°C	A	A	B	B
Ethyl Alcohol (Ethanol)	50%	150°F/65°C	A	A	B	B
Ethyl Alcohol (Ethanol)	77%	150°F/65°C	A	A	B	B
Ethyl Alcohol (Ethanol)	95%	70°F/21°C	A	A	B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 10



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Ethyl Alcohol (Ethanol)	95%	100°F/37°C	A	A	B	B
Ethyl Alcohol (Ethanol)	95%	150°F/65°C	A	A	B	B
Ethyl Alcohol (Ethanol)	97%	150°F/65°C	A	A	B	B
Ethyl Alcohol (Ethanol)	100%	173°F/78°C	A	A	B	B
Ethyl Amide	70%	70°F/21°C	A			NR
Ethyl Amide (Anhydrous)	100%	70°F/21°C	A			NR
Ethyl Chloride	100%	70°F/21°C	A	A	B	
Ethyl Chloride	100%	150°F/65°C	A	A	B	
Ethyl Ether (fumes)		70°F/21°C	A		B	NR
Ethyl Ether (fumes)		94°F/34°C	A		B	NR
2-Ethyl Hexacrylate		100°F/37°C	A		B	B
2-Ethyl Hexenol		100°F/37°C	A		B	
Ethyl Silicate Conc.		100°F/37°C	A			
Ethylene Bromide	100%	176°F/80°C	A		B	
Ethylene Chloride		100°F/37°C	A	A	B	
Ethylene Chlorohydrin		100°F/37°C	A	A	B	
Ethylene Chlorohydrin	100%	194°F/90°C		A		
Ethylenediamine		70°F/21°C	A	A		
Ethylenediaminetetracetic Acid (EDTA)	40%	70°F/21°C	A			
Ethylene Dichloride		100°F/37°C	A		B	
Ethylene Glycol	100%	70°F/21°C	A	A	B	B
Ethylene Glycol	100%	120°F/48°C	A	A	B	B
Ethylene Glycol	100%	150°F/65°C	A	A	B	B
Ethylene Glycol Monomethyl Ether Acetate		100°F/37°C	A		B	
Ethylene Oxide		100°F/37°C	A			NR
Fatty Acid (Coconut)		180°F/82°C	A		B	B
Fatty Acid (Cotton)		180°F/82°C	A		B	B
Fatty Acid (Oleic)		180°F/82°C	A		B	B
Fatty Acid (Soya)		180°F/82°C	A		B	B
Ferric Ammonium Citrate Solution		100°F/37°C	A			
Ferric Chloride	10%	150°F/65°C	A	A	B	B
Ferric Chloride	50%	70°F/21°C	A	A	B	B
Ferric Chloride	50%	150°F/65°C	A	A	B	B
Ferric Nitrate		150°F/65°C			B	B
Ferric Sulfate		150°F/65°C	A			B
Ferrous Sulfate	10%	150°F/65°C	A	A	B	B
Ferrous Sulfate	25%	150°F/65°C			B	B
Ferrous Sulfide	10%	150°F/65°C	A	A		
Ferrous Sulfate/Hydrochloric Acid 50%/20%		100°F/37°C	B			
Finesse® Shampoo	100%	150°F/65°C	A	A		
Fish Oil		180°F/82°C	A		B	B
Floorstar® TFR II	Conc.	150°F/65°C	NR	NR		
Fluosilic Acid		150°F/65°C				NR

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 11



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Formaldehyde	0.17%	150°F/65°C	A		B	B
Formaldehyde & Methyl Alcohol (37%-7%)		70°F/21°C	A	A	B	B
Formaldehyde & Methyl Alcohol (37%-7%)		150°F/65°C	A	A	B	B
Formaldehyde (unstabilized)	44%	130°F/54°C	A		B	B
Formaldehyde	50%	150°F/65°C	A		B	B
Formic Acid	10%	70°F/21°C	LR	LR	B	NR
Formic Acid	10%	150°F/65°C	LR			NR
Formic Acid	90%	100°F/37°C	NR			NR
Formic Acid	100%	70°F/21°C	B		B	NR
Formic Acid	100%	125°F/51°C	NR			NR
Freon		100°F/37°C	A	A	B	NR
Fruit Juice		100°F/37°C	A	A	B	B
Fuel Oil		100°F/37°C	A	A	B	B
Fumaric Acid	10%	212°F/100°C	A	A		
Furan		90°F/32°C	A		B	
Furfuryl Alcohol		70°F/21°C	A	A	B	
Furfurylamine		70°F/21°C	A			
Gallic Acid		100°F/37°C			B	B
Gasoline, Aviation		70°F/21°C	A	A	B	B
Gasoline, Leaded		100°F/37°C	A	A	B	B
Gasoline, Unleaded	100%	70°F/21°C	A	A	B	B
Gasoline, Unleaded	100%	150°F/65°C	A	A	B	B
Gasoline, White		70°F/21°C	A	A	B	B
Gelatin		100°F/37°C	A	A	B	B
Gluconic Acid	50%	100°F/37°C	A			
Glucose		70°F/21°C	A		B	B
Glycidyl Phenylether		70°F/21°C	A		B	
Glycerine		70°F/21°C	A		B	B
Glycerine		200°F/93°C	A		B	B
Glycolic Acid (Hydroxyacetic Acid)	70%	140°F/40°C	A			
Glycols	30%	70°F/21°C	A		B	B
Green Liquor		150°F/65°C	LR		B	B
Heptane		100°F/37°C	A	A	B	B
Heptanoic Acid		70°F/21°C	A			
Hevea® Latex Type k5		70°F/21°C	A		B	B
Hexane		150°F/65°C	A	A		B
Hexane		350°F/176°C	A	A		
1,6-Hexandiol		150°F/65°C	A	A	B	B
Hexametaphosphate		100°F/37°C	A			
Hexamethylenetetramine		150°F/65°C	A	A		NR
Hilex® Bleach (See Sodium Hypochlorite)		70°F/21°C	NR		NR	NR
Hydraulic Fluid (Houghtsafe 1120)		140°F/40°C	A		B	
Hydraulic Fluid (Houghtsafe 56/60)		140°F/40°C	A		B	

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 12



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Hydraulic Fluid (Houghtosafe 620)		140°F/40°C	A		B	
Hydraulic Fluid (skybtul)		50°F/10°C	A		B	
Hydraulic Fluid (skybtul)		150°F/65°C	A		B	
Hydrazine		100°F/37°C	B		NR	
Hydrobromic Acid	2½%	70°F/21°C	B	B	B	NR
Hydrobromic Acid	5%	70°F/21°C	B	B	B	NR
Hydrobromic Acid	10%	150°F/65°C	B	B	B	NR
Hydrobromic Acid	12½%	70°F/21°C	B	B	B	NR
Hydrobromic Acid	15%	70°F/21°C	NR	LR	B	NR
Hydrobromic Acid	20%	70°F/21°C	NR			NR
Hydrobromic Acid	25%	70°F/21°C	NR			NR
Hydrobromic Acid	30%	150°F/65°C	NR		NR	NR
Hydrobromic Acid	48%	150°F/65°C	NR	NR	NR	NR
Hydrochloric Acid	2½%	70°F/21°C	LR	LR	B	B
Hydrochloric Acid	5%	70°F/21°C	LR	LR	B	B
Hydrochloric Acid	10%	70°F/21°C	B	B	B	B
Hydrochloric Acid	10%	100°F/37°C	B	B	B	B
Hydrochloric Acid	10%	150°F/65°C	NR			B
Hydrochloric Acid	12½%	70°F/21°C			B	B
Hydrochloric Acid	15%	70°F/21°C			B	B
Hydrochloric Acid	20%	70°F/21°C	B		B	B
Hydrochloric Acid	20%	100°F/37°C	B		B	B
Hydrochloric Acid	20%	185°F/85°C	NR			NR
Hydrochloric Acid	30%	100°F/37°C	B		NR	B
Hydrochloric Acid	30%	150°F/65°C	NR			NR
Hydrochloric Acid	37%	70°F/21°C				NR
Hydrochloric Acid	37%	150°F/65°C	NR			NR
Hydrocyanic Acid		100°F/37°C				B
Hydrofluoric Acid	2%	70°F/21°C			B	
Hydrofluoric Acid	10%	70°F/21°C	NR			NR
Hydrofluoric, Vapors		212°F/100°C	NR			NR
Hydrofluorosilic Acid	29%	100°F/37°C	B			NR
Hydrogen Gas		70°F/21°C	A	A	B	B
Hydrogen Gas		350°F/176°C		A		
Hydrogen Peroxide	1%	70°F/21°C			B	
Hydrogen Peroxide	30%	374°F/190°C		B	NR	NR
Hydrogen Peroxide	90%	150°F/65°C	NR	NR	NR	NR
Hydrogen Sulfide	3%	70°F/21°C	A		B	B
Hydrogen Sulfide	5%	210°F/98°C	A			
Hydroquinone		70°F/21°C	A			
Hydroxyacetic Acid		77°F/25°C	A	A		
Hydroxyacetic Acid		100°F/37°C	A			
Hypochloric Acid		70°F/21°C	NR		NR	NR

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 13



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Hyposulfite		100°F/37°C			B	B
Ink		100°F/37°C	A	A	B	B
Insecticide Bidrin 8 (Amvac)	Conc.	70°F/21°C	A			
Insecticide CDMAA (Amvac)	Conc.	70°F/21°C	A	A		
Insecticide Naled (Amvac)	Conc.	70°F/21°C	A	A		
Insecticide Nifs T (Monsanto)		100°F/37°C	A			
Iodine		75°F/23°C	A		B	
Iron Pickle Liquor		150°F/65°C			B	B
Iron Sulfate		100°F/37°C	A	A	B	B
Iso-par (Isoparaffinic material)		140°F/40°C	A			
Isobutane		70°F/21°C	A		B	B
Isobutylaldehyde		70°F/21°C	A		B	
Isobutyl Alcohol		70°F/21°C	A		B	B
Isobutyl Alcohol/Formaldehyde 60%/40%		100°F/37°C	A			
Isooctyl Alcohol		70°F/21°C	A		B	B
Isophorone		70°F/21°C	A		B	
Isopropyl Alcohol		70°F/21°C	A	A	B	B
Isopropyl Alcohol		150°F/65°C	A	A	B	B
Isopropyl Acetate		70°F/21°C	A	A	B	
Isopropyl Acetate		200°F/93°C	A	A		
Jet Fuel		70°F/21°C	A	A	B	B
Jet Fuel		100°F/37°C	A	A	B	B
Jet Fuel JP-5		120°F/48°C	A	A	B	B
Joy® Dish Soap		150°F/65°C	A			
Kaboom®		120°F/48°C	LR	LR	B	
Karo Syrup		70°F/21°C	A	A	B	B
Kelvar		140°F/40°C	A			
Kerosene		100°F/37°C	A	A	B	B
Kopper Star Distillate		140°F/40°C	A			
Lacquer		100°F/37°C	A		B	NR
Lacquer Solvent		100°F/37°C	A		B	NR
Lactic Acid	10%	140°F/40°C	LR	LR	B	B
Lactic Acid	22%	100°F/37°C	A			
Lactic Acid	100%	100°F/37°C	A	A	B	B
Lanoline® Lotion Shampoo Concentrate		70°F/21°C	A			
Lard		70°F/21°C	A			
Latex		100°F/37°C	A		B	B
Latex #512K (Dow®)		70°F/21°C	A		B	B
Latex GR-S Type 3		77°F/25°C	A	A	B	B
Latex Rubber		70°F/21°C	A		B	B
Leachate Solution (Sour Water)		150°F/65°C				
Lead Acetate	10%	150°F/65°C	A	A	B	
Levulinic Acid		77°F/25°C	A			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 14



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Lignin Sulfate		100°F/37°C	A			
Lime (Chopped)		100°F/37°C	A			
Linoleic Acid		100°F/37°C	A		B	B
Lithium Chloride		70°F/21°C	LR		B	B
LP Gas		100°F/37°C	A	A	B	
LpHst (Steris product)	100%	70°F/21°C			A	
LpHst (Steris product)	0.01%	70°F/21°C			A	
Lube Oil (Pennzoil 10W30)		150°F/65°C	A	A	B	B
Lubricating Oil		70°F/21°C	A	A	B	B
Lubricating Oil		182°F/83°C	A	A	B	B
Lysol®		70°F/21°C	A			
Magnesium Carbonate		150°F/65°C	A		B	B
Magnesium Chlorate		150°F/65°C			B	B
Magnesium Chloride	40%	100°F/37°C	A	A	B	B
Magnesium Chloride	5%	70°F/21°C			A	
Magnesium Chloride	50%	70°F/21°C	A		B	B
Magnesium Hydroxide Slurry		150°F/65°C	A		B	B
Magnesium Nitrate		150°F/65°C			B	B
Magnesium Oxide	20%	70°F/21°C	A		B	B
Magnesium Sulfate		100°F/37°C	A		B	B
Magnesium Sulfate		150°F/65°C	A		B	B
Maleic Acid	50%	70°F/21°C	A		B	B
Maleic Anhydride		100°F/37°C	A			
Maleic Anhydride		250°F/121°C	A			
Malic Acid		100°F/37°C	LR		B	B
Manganese Ammonium Sulfate		100°F/37°C			B	B
Manganese Chloride		100°F/37°C	A	A	B	B
Manganese Sulfate		150°F/65°C	A		B	B
Martan B® liquid (Marathon Oil)		100°F/37°C	A			
Mayonnaise		150°F/65°C	A			
MEK Peroxide (45% in Dimethyl Phthalate)		70°F/21°C	A	B	B	NR
Melamine		70°F/21°C	NR	NR		
Melamine Resin Solution		100°F/37°C	A		B	B
Mercuric Chloride		100°F/37°C	A	A	B	B
Methyl Acetate	96%	100°F/37°C	A		B	NR
Methyl Acrylate		100°F/37°C	A	A	B	
Methyl Alcohol	100%	70°F/21°C	A	A	B	B
Methyl Alcohol	100%	120°F/48°C	A	A	B	B
Methyl Alcohol	100%	148°F/64°C	A	A	B	B
Methyl Butane		100°F/37°C	A		B	B
Methyl Cellosolve (Glycol EM)		70°F/21°C	A	A	B	
Methyl Cellosolve (Glycol EM)		120°F/48°C	A	A	B	NR
Methyl Chloride		100°F/37°C	A		B	NR

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 15



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Methyl Chloride		150°F/65°C	A		B	NR
Methyl Ether		50°F/10°C	A		B	NR
Methyl Ethyl Ketone	100%	100°F/37°C	A	A	B	NR
Methyl Ethyl Ketone	100%	150°F/65°C	A	A	B	NR
Methyl Fluoride		150°F/65°C	A		B	NR
Methyl Isobutyl Carbinol		70°F/21°C	A		B	
Methyl Isobutyl Ketone (MIBK)		70°F/21°C	A	A	B	NR
Methyl Mercaptan		70°F/21°C	A			
Methyl Methacrylate		100°F/37°C	A	A	B	
Methyl Propane		70°F/21°C	A		B	B
Methylene Bromide		100°F/37°C	A	A		
Methylene Chloride	100%	77°F/25°C	A	A	B	NR
Methylene Chloride	100%	100°F/37°C	A	A	B	NR
Methylene Chloride	100%	113°F/45°C	A	A	B	NR
Methylene Chlorobromide		70°F/21°C	A		B	NR
Methylene Diisocyanate		100°F/37°C	A			
n-Methylpyrrolidone	100%	275°F/23°C	A		B	
Milk (condensed)		70°F/21°C	A		B	B
Milk (whey)		150°F/65°C	A		B	B
Mineral Oil		70°F/21°C	A	A	B	B
Mineral Spirits		150°F/65°C	A	A	B	B
Molasses	100%	70°F/21°C	A	A	B	B
Molasses		110°F/43°C	A	A	B	B
Monochloroacetic Acid		100°F/37°C	A			
Monochloropinacolone (MCP)		75°F/23°C	A			
Monochloropinacolone (MCP)		100°F/37°C	A			
Monoethanolamine		100°F/37°C	NR			NR
Monofluorophosphoric Acid		70°F/21°C	B	B		NR
Morpholine		150°F/65°C	A			
Mustard		150°F/65°C	A			
Nalco ® 2000 / Nalcool 2000 / Nalfleet 2000	100%	70°F/21°C			A	
Naphthalene (sulfonated)		150°F/65°C	A		B	B
Naphtha		150°F/65°C	A	A	B	B
Naphthenic Acid		100°F/37°C	A	A	B	B
Naphthenic Acid	95%	180°F/82°C	A	A		
1-Naphthol-4-Sulfonic Acid	7.5-8.0pH	158°F/70°C	A		B	B
Natural Gas		100°F/37°C	A		B	B
Neatsfoot Oil		150°F/65°C	A	A	B	B
Neatsfoot Oil		250°F/121°C	A	A	B	B
Nickel Acetate	50%	70°F/21°C	A		B	B
Nickel Chloride	50%	70°F/21°C	A		B	B
Nickel Nitrate		150°F/65°C			B	B
Nickel Plating Solution (electroless)		212°F/100°C	B	A		

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 16



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Nickel Plating Solution		374°F/190°C	B		B	B
Nickel Salts		150°F/65°C			B	B
Nickel Sulfate		150°F/65°C			B	B
Nitric Acid	1%	70°F/21°C	LR	A	B	NR
Nitric Acid	2%	185°F/85°C	LR			NR
Nitric Acid	5%	70°F/21°C	LR	LR	B	
Nitric Acid	5%	120°F/48°C	LR	B		NR
Nitric Acid	10%	100°F/37°C			B	NR
Nitric Acid	10%	140°F/40°C	NR	NR	B	NR
Nitric Acid	10%	150°F/65°C	NR	NR	B	NR
Nitric Acid	10%	185°F/85°C	NR	NR		NR
Nitric Acid	15%	150°F/65°C	NR	NR		NR
Nitric Acid	25%	70°F/21°C	B		B	NR
Nitric Acid	25%	100°F/37°C	NR	NR		NR
Nitric Acid	25%	150°F/65°C	NR	NR		NR
Nitric Acid	50%	100°F/37°C	NR	NR		NR
Nitric Acid	70%	100°F/37°C	NR	NR		NR
Nitrobenzene		100°F/37°C	A	A	B	NR
Nitrobenzenesulfonic Acid		100°F/37°C	A	A		
o-Nitrochlorobenzene		180°F/82°C	A		B	
p-Nitrochlorobenzene		100°F/37°C	A		B	B
Nitrogen		100°F/37°C	A	A	B	B
Nitrogen		300°F/148°C	A	A		
Nitrophenol		250°F/121°C	A	A	B	NR
1-Nitropropane		70°F/21°C	A		B	B
Nonylphenol		100°F/37°C	A		B	
Nonylphenol		180°F/82°C	A		B	
n-Octyl Alcohol		70°F/21°C	A		B	B
Nu-Calgon Evap Pow'r-C	100%	70°F/21°C			A	LR
Nu-Calgon Evap-Green	100%	70°F/21°C			A	LR
Nu-Calgon Green Clean	100%	70°F/21°C			A	LR
Nu-Calgon Cal-Green	100%	70°F/21°C			A	LR
Nu-Calgon Tri-Pow'r HD	100%	70°F/21°C			A	LR
Nu-Calgon TriClean 2x	100%	70°F/21°C			A	LR
Nu-Calgon Nu-Solve NR	100%	70°F/21°C			A	LR
p-t-Octyl Phenol		250°F/121°C	A			
Oil, Cutting		140°F/40°C	A		B	B
Oil, water soluble		70°F/21°C	A		B	
Oleic Acid		70°F/21°C	A		B	B
Oleic Acid		250°F/121°C	A			
Oleomargarine		70°F/21°C	A			
Oleum		100°F/37°C	B			NR
Olive Oil		70°F/21°C	A		B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 17



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Orange Concentrate		70°F/21°C	A		B	
Orange Soda Concentrate		70°F/21°C	A		B	
Oxalic Acid		70°F/21°C	A		B	B
Oxalic Acid		160°F/21°C	A		B	
Oxygen		70°F/21°C	A	A	B	B
Ozone			NR	NR	NR	
Palm Oil		70°F/21°C	A	A	B	B
Palm Oil		150°F/65°C	A	A	B	B
Palm Oil (Crude)		250°F/121°C	A	A	B	NR
Palmitic Acid		200°F/93°C	A		B	B
Palmolive® Dish soap		150°F/65°C	A			
Paraformaldehyde	50%	150°F/65°C	A		B	
Paraldehyde		70°F/21°C	A		B	
Peanut Butter		70°F/21°C	A	A		
Peanut Oil		70°F/21°C	A			
1,3-Pentadiene		100°F/37°C	A		B	B
Pepper		70°F/21°C	A		B	
Pepperoni					NR	
Perchloric Acid	20%	70°F/21°C		B		NR
Perchloroethylene		200°F/93°C	A		B	NR
Phenol	3%	70°F/21°C	A		B	NR
Phenol	5%	150°F/65°C	A			
Phenol	50%	150°F/65°C	A	A		
Phenol	90%	100°F/37°C	A	A		NR
Phenol	90%	150°F/65°C	A	A		NR
Phenol	100%	150°F/65°C	A	A		NR
Phenylenediamine	50%	70°F/21°C	A			
Phenylhydrazine		70°F/21°C	B			
1-Phenyl-2-methyl-1,2-propanediamine		70°F/21°C	A			
Phosphoric Acid	10%	70°F/21°C	B		B	B
Phosphoric Acid	10%	150°F/65°C	B	B	B	B
Phosphoric Acid	25%	100°F/37°C	B	B		
Phosphoric Acid	25%	150°F/65°C	B	B		
Phosphoric Acid	50%	150°F/65°C	NR	NR		
Phosphoric Acid	75%	100°F/37°C				
Phosphoric Acid	75%	150°F/65°C	NR	NR		
Phosphoric Acid	85%	70°F/21°C	B		B	B
Phosphorus Oxychloride		70°F/21°C	A			
Phosphorus Trichloride		70°F/21°C	A			NR
Phthalic Acid	90%	70°F/21°C	A			
Phthalic Anhydride	80%	70°F/21°C	A			
Phthalic Anhydride, Concentrated (Mother Liquor)		100°F/37°C	A			
Phthalic Anhydride, molten		347°F/175°C	A			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 18



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Pickling Acid, sulfuric		150°F/65°C			B	B
Picric Acid		70°F/21°C			B	B
Pine Oil		70°F/21°C	A	A	B	B
Pine Oil		100°F/37°C	A	A	B	B
Polyaluminum Chloride		70°F/21°C	A			
Polyethylate Nonylphenol	70%	100°F/37°C	A		B	
Polyethylene Glycol		100°F/37°C	A		B	
Polyols		100°F/37°C	A			
Polyvinyl Acetate Emulsion		70°F/21°C	A	A	B	
Polyvinyl Chloride Pellets		70°F/21°C				
Potassium Acetate	25%	150°F/65°C	A	A	B	B
Potassium Bicarbonate		150°F/65°C			B	B
Potassium Bisulfate		100°F/37°C			B	B
Potassium Bromate	7%	70°F/21°C	A	NR	B	NR
Potassium Bromate	7%	150°F/65°C	B	NR	B	NR
Potassium Bromide	10%	150°F/65°C	A	A	B	B
Potassium Bromide	100%	70°F/21°C	A		B	B
Potassium Carbonate	10%	150°F/65°C	B	B	B	B
Potassium Chloride	10%	70°F/21°C	A	A	B	B
Potassium Chloride	10%	150°F/65°C	A	A	B	B
Potassium Chloride	25%	150°F/65°C	A	A	B	B
Potassium Chloride	100%	70°F/21°C	A		B	B
Potassium Chromate	10%	150°F/65°C	A	A	B	
Potassium Cuprocyanide		100°F/37°C			B	B
Potassium Cyanate		150°F/65°C			B	B
Potassium Dichromate	10%	150°F/65°C	A	A	B	B
Potassium Ferricyanide	25%	150°F/65°C	A	A	B	B
Potassium Ferrocyanide		70°F/21°C	A		B	B
Potassium Fluoride		70°F/21°C	A		B	B
Potassium Hydroxide	10%	100°F/37°C	NR		NR	NR
Potassium Hydroxide	10%	150°F/65°C	NR			
Potassium Hydroxide	50%	70°F/21°C	NR	NR	B	NR
Potassium Hydroxide	50%	150°F/65°C	NR	NR	NR	NR
Potassium Hypochlorite		100°F/37°C	NR		NR	NR
Potassium Iodide	25%	150°F/65°C	A	A	B	B
Potassium Nitrate	50%	70°F/21°C	A		B	B
Potassium Nitrite		150°F/65°C				B
Potassium Oleate		150°F/65°C	A			
Potassium Permanganate		70°F/21°C	B		B	B
Potassium Persulfate		150°F/65°C			B	B
Potassium Phosphate		100°F/37°C	A		B	B
Potassium Sulfate		150°F/65°C	A		B	B
Potassium Sulfide		150°F/65°C			B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 19



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Potassium Thiosulfate		100°F/37°C			B	B
Propane		100°F/37°C	A	A	B	B
Propionaldehyde		70°F/21°C	A		B	
Propionic Acid		70°F/21°C	LR			
n-Propyl Acetate		70°F/21°C	A	A	B	
n-Propyl Alcohol	100%	70°F/21°C	A	A	B	B
n-Propyl Alcohol		100°F/37°C	A	A	B	B
n-Propyl Alcohol		150°F/65°C	A	A	B	B
Propylene		100°F/37°C	A		B	B
Propylene Glycol		100°F/37°C	A	A	B	
Propylene Glycol Monomethyl Ether (PM)		150°F/65°C	A	A	B	
Propylene Oxide		70°F/21°C	A			
Propylenediamine		70°F/21°C	A			NR
Pro-Red +	10%	70°F/21°C			NR	
Prune Juice		100°F/37°C	A		B	B
Pyridine		100°F/37°C	A		B	
Pyrogalllic Acid		70°F/21°C			B	B
Quaternary Ammonium Chlorides		100°F/37°C	A			
Rapeseed Oil		70°F/21°C	A	A	B	B
Rocadyna (PVP)		150°F/65°C	A			
Rochelle Salts		100°F/37°C	A		B	B
Rosin (wood)		388°F/197°C	A		B	B
Rubber Latex		77°F/25°C	A		B	
Sake Wine		100°F/37°C	A	A	B	
Salicylic Acid	10%	150°F/65°C	A	A	B	B
Salomi		70°F/21°C			NR	
Saturated Lime & Calcium		374°F/190°C		NR		
Sauve® shampoo	100%	70°F/21°C	A			
Scale Gone 70 (MEC Corporation)	17%	150°F/65°C	A	A		
Silicic Acid		100°F/37°C			B	B
Silver Nitrate	20%	150°F/65°C	A	A	B	B
Silver Plating Solution		150°F/65°C			B	B
Sodium Acetate	25%	70°F/21°C	A	A	B	B
Sodium Acetate	25%	150°F/65°C	A	A	B	B
Sodium Acetate	50%	150°F/65°C	A	A	B	B
Sodium Aluminate		100°F/37°C			B	B
Sodium Bicarbonate		150°F/65°C	B		B	B
Sodium Bisulfate	10%	150°F/65°C	A		B	B
Sodium Bisulfate	25%	150°F/65°C	A	NR	B	B
Sodium Bisulfide		100°F/37°C			B	B
Sodium Bisulfite	25%	150°F/65°C	A	A	B	B
Sodium Borate		100°F/37°C	A		B	B
Sodium Bromide		150°F/65°C	A		B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 20



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Sodium Carbonate	10%	176°F/80°C	A	B	B	B
Sodium Carbonate	15%	185°F/85°C	A			
Sodium Carbonate	20%	140°F/40°C	A		B	B
Sodium Carbonate	50%	70°F/21°C	A		B	B
Sodium Carbonate	99%	100°F/37°C	A		B	B
Sodium Chlorate	46%	120°F/48°C	NR	NR		
Sodium Chlorate	50%	70°F/21°C	A	LR	B	B
Sodium Chlorate	50%	120°F/48°C	LR	LR		
Sodium Chloride	5%	70°F/21°C			A	
Sodium Chloride	5%	150°F/65°C	A	A	B	B
Sodium Chloride	20%	77°F/25°C	A	A	B	B
Sodium Chloride	20%	200°F/93°C	A			
Sodium Chloride	40%	200°F/93°C	A		B	B
Sodium Chlorite		100°F/37°C	B		B	B
Sodium Chlorite	25%	120°F/48°C	NR	NR	NR	NR
Sodium Chromate	50%	70°F/21°C	A		B	B
Sodium Cyanide	20%	100°F/37°C	B		B	B
Sodium Dichromate		100°F/37°C	B		B	B
Sodium Ferricyanide		100°F/37°C			B	B
Sodium Fluoride	25%	122°F/50°C	A	A	B	NR
Sodium Fluoride	25%	150°F/65°C	A	A	B	NR
Sodium Formate	22%	180°F/82°C	A		B	
Sodium Formate	48%	150°F/65°C	A			
Sodium Formate	50%	250°F/121°C			B	
Sodium Hydrosulfide (Sodium Bisulfide)		100°F/37°C			B	B
Sodium Hydroxide	½%	176°F/80°C	A	B		NR
Sodium Hydroxide	1%	100°F/37°C			NR	NR
Sodium Hydroxide	2%	77°F/25°C		B	B	NR
Sodium Hydroxide	2%	176°F/80°C	NR	NR	NR	NR
Sodium Hydroxide	5%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	5%	150°F/65°C	NR	NR	NR	NR
Sodium Hydroxide	8%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	10%	70°F/21°C	NR	NR	B	NR
Sodium Hydroxide	10%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	10%	120°F/48°C	NR	NR	NR	NR
Sodium Hydroxide	10%	150°F/65°C	NR	NR	NR	NR
Sodium Hydroxide	10%	200°F/93°C	NR	NR	NR	NR
Sodium Hydroxide	20%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	20%	200°F/93°C	NR	NR	NR	NR
Sodium Hydroxide	25%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	28%	70°F/21°C	NR	NR	B	NR
Sodium Hydroxide	30%	150°F/65°C	NR	NR	NR	NR
Sodium Hydroxide	40%	100°F/37°C	NR	NR	NR	NR

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 21



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Sodium Hydroxide	40%	150°F/65°C	NR	NR	NR	NR
Sodium Hydroxide	50%	70°F/21°C	NR	NR	B	NR
Sodium Hydroxide	50%	100°F/37°C	NR	NR	NR	NR
Sodium Hydroxide	50%	150°F/65°C	NR	NR	NR	NR
Sodium Hydroxide	73%	160°F/21°C	NR	NR	NR	NR
Sodium Hydroxide	73%	250°F/121°C	NR	NR	NR	NR
Sodium Hydroxide	75%	150°F/65°C	NR	NR	NR	NR
Sodium Hypochlorite (Bleach)	5%	70°F/21°C	NR	NR	B	NR
Sodium Hypochlorite (Bleach)	5½%	100°F/37°C	NR	NR	B	NR
Sodium Hypochlorite (Bleach)	5½%	140°F/40°C	NR	NR	NR	NR
Sodium Hypochlorite (Bleach)	5½%	150°F/65°C	NR	NR	NR	NR
Sodium Hypochlorite	12½%	70°F/21°C	NR	NR	NR	NR
Sodium Hypochlorite	15%	70°F/21°C	NR	NR	NR	
Sodium Hypophosphite	5%	70°F/21°C	A			
Sodium Metaphosphate	5%	70°F/21°C	A			
Sodium Metaphosphate	12½%	100°F/37°C	A			
Sodium Nitrate		100°F/37°C	A		B	B
Sodium Nitrite		150°F/65°C			B	B
Sodium Oleate		100°F/37°C	A		B	B
Sodium Permanganate		150°F/65°C			B	B
Sodium Peroxide		100°F/37°C	B		B	B
Sodium Phosphate	50%	70°F/21°C	B		B	B
Sodium Polyacrylate		70°F/21°C	A			
Sodium Propionate	20%	70°F/21°C	A		B	
Sodium Silicate		150°F/65°C	A		B	B
Sodium Sulfate	10%	150°F/65°C	A	A	B	B
Sodium Sulfate	25%	150°F/65°C	A	A	B	B
Sodium Sulfate	30%	150°F/65°C	A	A	B	B
Sodium Sulfate	30%	200°F/93°C	A	A	B	B
Sodium Sulfate Nickle Pickling Solution		150°F/65°C			B	B
Sodium Sulphhydrate		100°F/37°C	A			
Sodium Sulfite	10%	150°F/65°C	A	A	B	B
Sodium Sulfite	10%	180°F/82°C	A	A	B	B
Sodium Sulfite	25%	150°F/65°C	A	A	B	B
Sodium Thiocyanate	10%	70°F/21°C	LR			
Sodium Thiocyanate	50%	70°F/21°C	LR			
Sodium Thiosulfate	10%	150°F/65°C	A	A	B	B
Sodium Thiosulfate	30%	100°F/37°C	A	A	B	B
Sodium Thiosulfate	30%	120°F/48°C	A	A	B	B
Sodium ThioSulfate	30%	150°F/65°C	A	A	B	B
Sodium Toluene Sulfonate	40%	100°F/37°C	A			
Sodium Xylene Sulfonate		100°F/37°C	NR			
Solo® Laundry detergent	100%	150°F/65°C	B			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 22



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Sorbitol	conc.	100°F/37°C	A	A	B	
Soya Oil		180°F/82°C	A		B	B
Soybean Hydrase		70°F/21°C	A	A	B	
Soybean Hydrase		150°F/65°C	A	A	B	
Soysauce	100%	150°F/65°C	A			
Sparkle	100%	70°F/21°C			A	
Spor-Klenz®	1%				A	B
Spor-Klenz®	100%				A	
Stannic Chloride		100°F/37°C	B		B	B
Stannous Chloride		100°F/37°C			B	B
Starch		150°F/65°C	A	A	B	B
Steam		225°F/107°C	A	A	B	NR
Steam		250°F/121°C	A	A	B	NR
Steam		290°F/143°C	A	A		NR
Stearic Acid	90%	160°F/21°C	A	A	B	B
Stoddard Solvent		150°F/65°C	A	A	B	B
Strawberry Preserves		70°F/21°C	A			
Styrene		70°F/21°C	A			
Styrene Butadiene Latex (pH 7-9)		140°F/40°C	A	A		
Sugar Mixture		70°F/21°C	A		B	B
Sulfamic Acid	20%	70°F/21°C	A		B	B
Sulfamic Acid	50%	70°F/21°C	A		B	B
Sulfur	100%	300°F/148°C	A		B	NR
Sulfur Chloride		100°F/37°C				NR
Sulfur Dioxide		150°F/65°C	A		B	LR
Sulfur Trioxide		100°F/37°C				NR
Sulfuric Acid	5%	70°F/21°C	LR	LR	B	B
Sulfuric Acid	5%	100°F/37°C	LR	LR	B	B
Sulfuric Acid	5%	120°F/48°C	LR	LR	B	B
Sulfuric Acid	5%	150°F/65°C	B	LR	B	B
Sulfuric Acid	10%	77°F/25°C	B	NR	B	
Sulfuric Acid	10%	100°F/37°C	B	NR		
Sulfuric Acid	10%	120°F/48°C	B	NR	B	B
Sulfuric Acid	10%	150°F/65°C	B	NR	B	
Sulfuric Acid	15%	185°F/85°C	B	NR		
Sulfuric Acid	20%	70°F/21°C	B	LR	B	B
Sulfuric Acid	20%	150°F/65°C	B	B	B	
Sulfuric Acid	25%	70°F/21°C	B		B	
Sulfuric Acid	25%	100°F/37°C	B	B	B	
Sulfuric Acid	25%	150°F/65°C	B	B	B	
Sulfuric Acid	25%	300°F/148°C	B	B		
Sulfuric Acid	30%	70°F/21°C	B		B	B
Sulfuric Acid	30%	100°F/37°C	B	B	B	

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 23



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Sulfuric Acid	30%	150°F/65°C	NR	NR		
Sulfuric Acid	50%	70°F/21°C	LR		B	B
Sulfuric Acid	50%	150°F/65°C	LR		B	B
Sulfuric Acid	70%	70°F/21°C	A		B	B
Sulfuric Acid	70%	100°F/37°C	A		B	B
Sulfuric Acid	70%	150°F/65°C	B	B	B	B
Sulfuric Acid	75%	70°F/21°C	A			
Sulfuric Acid	75%	100°F/37°C	A		B	B
Sulfuric Acid	75%	150°F/65°C	LR		B	B
Sulfuric Acid	92%	100°F/37°C	A			NR
Sulfuric Acid	96%	100°F/37°C	A			
Sulfuric Acid	98%	70°F/21°C	A	B	B	NR
Sulfuric Acid	98%	120°F/48°C	A			NR
Sulfuric Acid	98%	150°F/65°C	B			NR
Sulfuric Acid	98%	180°F/82°C	NR			NR
Sulfuric Acid	100%	100°F/37°C	LR	NR		NR
Sulfuric Acid	100%	150°F/65°C	LR	NR		NR
Sulfuric Acid/Chromic Acid 6%/5%		100°F/37°C	NR			
Sulfuric Acid/Nitric Acid 64%/0.1%		100°F/37°C	NR			
Sulfurous Acid	15%	200°F/93°C	A			
Sulfurous Acid	100%	100°F/37°C			B	NR
Surfactants		100°F/37°C			B	B
Tall Oil		70°F/21°C	A		B	B
Tall Oil		180°F/82°C	A		B	B
Tallow (crude)		150°F/65°C	A		B	B
Tannic Acid	10%	200°F/93°C	A			
Tannic Acid	100%	100°F/37°C	A		B	B
Tar		150°F/65°C	A		B	B
Tartaric Acid	30%	200°F/93°C	A			
Tartaric Acid	100%	100°F/37°C			B	B
Tetrachloroethane		200°F/93°C	A	A	B	NR
Tetraethylenepentamine		70°F/21°C	A			
Tetrafluoroethylene		150°F/65°C	A		B	NR
Tetrahydrofuran		70°F/21°C	A		B	
Tetrahydrofuran		151°F/66°C	A	A	B	
Thioglycolic Acid	97%	70°F/21°C	A	A		
Thioglycolic Acid	97%	150°F/65°C	LR	LR		
Thiols		70°F/21°C	A			
Tide® Laundry detergent	100%	70°F/21°C	A			
Tide® Laundry detergent	100%	150°F/65°C	A			
Tin Immersion Dip		150°F/65°C				B
Tin Tetrachloride	50%	70°F/21°C	A		B	NR
Titanium Dioxide		100°F/37°C	A.			

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 24



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Titanium Tetrachloride		100°F/37°C	NR	NR		
Toluene	100%	70°F/21°C	A	A	B	NR
Toluene	100%	100°F/37°C	A	A	B	NR
Toluene	100%	230°F/110°C	A	A	B	NR
Toluene Diisocyanate (TDI)		100°F/37°C	A	A		
Toluenesulfonamide/formaldehyde resin	100%	150°F/65°C	A	A		
Tomato Paste, no salt (Hunts®)	100%	150°F/65°C				
Tomato Puree (Hunts®)	100%	150°F/65°C				
Toxaphene	100%	194°F/90°C	A			
Toxaphene	100%	212°F/100°C	A	LR		
Transformer Oil		70°F/21°C	A			
Tributyl Phosphate		70°F/21°C	A			
1,1,1 Trichloroethane		70°F/21°C	A	A		
1,1,1 Trichloroethane		165°F/73°C	A	A	B	NR
Trichloroethylene	100%	70°F/21°C	A	A	B	NR
Trichloroethylene	100%	150°F/65°C	A	A	B	NR
Trichloroethylene	100%	180°F/82°C	A		B	NR
Tricresyl Phosphate	100%	70°F/21°C	A	A	B	B
Tricresyl Phosphate	100%	100°F/37°C	A		B	B
Tridecyl Alcohol		70°F/21°C	A		B	B
Triethanolamine		100°F/37°C	A			
Triethanolamine Lauryl Sulfate		100°F/37°C	A	LR		
Triethylbenzene		150°F/65°C	A			
Triethylene Glycol		100°F/37°C	A			
Triethylenetetramine		100°F/37°C	A	A		
Trifluoroacetic Acid (3M)	100%	162°F/72°C	A	A	B	NR
Triphenyl Phosphite		100°F/37°C	A	A	B	NR
Tripotassium Phosphate		150°F/65°C	A	A	B	NR
Trisodium Phosphate	5%	140°F/40°C	A		B	NR
Tung Oil	100%	70°F/21°C	A	A	B	B
Turpentine		70°F/21°C	A		B	B
Urea Fromaldehyde resin		100°F/37°C	A		B	B
Urea Liquor		266°F/130°C	A		B	B
Urea Solution	50%	100°F/37°C	A			
Urea-Ammonium Nitrate solution		150°F/65°C	A			
Uric Acid		70°F/21°C	A		B	
V-8 Vegetable Juice		70°F/21°C	A	A		
Vapam		100°F/37°C		A		
Varnish		150°F/65°C	A			
Vegetable Oil		100°F/37°C	A			
Vesphene (Steris Product)	100%	70°F/21°C			A	
Vesphene (Steris Product)	0.01%	70°F/21°C			A	
Vicks® Cough Syrup		70°F/21°C	A		B	NR

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 25



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC

Heresite Chemical Resistance Guide

			P-403L	P-403L/ L-66L	P-413	VR-514
Chemical	Conc.	Temp	High bake phenolic	High gloss bake phenolic system	Modified baked phenolic	Air dry phenolic
Vinegar (White)		70°F/21°C	A			
Vinyl Acetate (Clear liquid)		150°F/65°C	A		B	B
Vinyl Chloride		70°F/21°C	A		B	B
Vinyl Toluene		100°F/37°C	A		B	B
Water, Boiler		212°F/100°C	A			
Water, Boiling Distilled		225°F/107°C	A		B	B
Water, Boiling Distilled		250°F/121°C	A			
Water, Boiling Distilled		290°F/143°C	A	A	B	B
Water, Brackish		150°F/65°C	A	A		
Water, Cation Exchange	pH4	180°F/82°C	A		B	
Water, DI		100°F/37°C	A	A	B	B
Water, DI		150°F/65°C	A	A	B	B
Water, DI		212°F/100°C	A	A	B	NR
Water, Fresh		212°F/100°C	A	A	B	B
Water, Salt	5%	150°F/65°C	A		B	B
Water, Sea		165°F/73°C	A	A	B	B
Water, Sea		212°F/100°C	A	A	B	NR
Water, Tap		100°F/37°C	A	A	B	B
Water, Tap		150°F/65°C	A	A	B	B
Water, Tap		212°F/100°C	A		B	NR
Wax		200°F/93°C	A			
Whey		70°F/21°C	A			
Whiskey		150°F/65°C	A		B	B
White Liquor		150°F/65°C	NR	NR	B	B
Whizz® Laundry detergent	100%	150°F/65°C	NR	NR		
Wine		100°F/37°C	A		B	B
Wood Rosin	100%	100°F/37°C	A	A	B	B
Wood Rosin		388°F/197°C	A		B	NR
Xylene	100%	150°F/65°C	A	A	B	NR
P-Xylene		150°F/65°C	A	A	B	NR
Yeast		150°F/65°C			B	
Zinc Acetate	10%	100°F/37°C	A		B	B
Zinc Acetate	30%	100°F/37°C	A		B	B
Zinc Calcium Bromide		150°F/65°C	A	A	B	B
Zinc Chloride	10%	150°F/65°C	A	A	B	B
Zinc Chloride	40%	70°F/21°C	A		B	B

A:Resistant

B:Resistant Fume

C:Secondary Containment

LR: Call Heresite, Inc.

NR:Not Recommended

Blank:Insufficient Data

Page 26



Heresite Protective Coatings LLC • 822 S. 14th St • Manitowoc, WI 54220
800-558-7747 or 920-684-6646 • sales@heresite.com • www.heresite.com

HERESITE
PROTECTIVE COATINGS, LLC



PSX 700

Engineered Siloxane Coating

Data Sheet: 700

Supersedes: 11/07

Revised: 03/08

PSX Advantage: PSX 700 is a patented engineered siloxane coating which embodies the properties of both a high performance epoxy and a polyurethane in one coat. This multi-purpose coating offers "breakthrough" weather resistance and corrosion control.

- Unique, high-gloss, super durable coating
- Can be applied directly over 2-pack epoxy zinc rich primers
- Cures at room temperature
- Gloss and appearance retention exceeding the best polyurethane
- Significantly lower applied costs
- Excellent to acids and corrosion.
- High solids, low VOC
- Resists high humidity and moisture
- Applied by brush, roller or spray
- Outstanding resistance to chemical splash and spill
- OEM version available for lower build applications which require improved levelling and flow.

Typical Uses

PSX 700 offers significant advantages in that the system can normally be applied in two coats compared to the traditional systems using epoxies and urethanes. It provides very effective long-term corrosion control and weatherability.

- Structural steel - bridges, marine
- External tanks and pipe work
- Mineral processing, smelters and refineries
- Industrial plants – power, pulp and paper, wastewater treatment, chemical and petrochemical
- Concrete walls and floors
- Transportation – rail car exterior, vehicle equipment, buses, trucks
- Marine – decks, boottops, topside and superstructures on ships, barges and offshore platforms
- Indoor aquatic centres and sports stadiums
- Commercial buildings and shopping centres
- Airports and hospitals
- Coastal developments
- Offshore oil, LNG platforms, FPSO's and exterior of tankage

Physical Data

Finish	Gloss
Colour	Large range of colours available
Components	2
Curing mechanism	Chemical reaction
Volume solids (White)	90 ± 3%
Volume solids (White) OEM	90 ± 3%
Volume solids (Metallic OEM)	73 ± 3%
Coats	1 or 2
Dry film thickness per coat	75-150 µm (85-165 µm wet)
OEM dry film thickness	50-75µm (55-85 µm wet)
Note: Total DFT of PSX 700 not to exceed 250µm	

Theoretical Coverage

at 125 microns	7.1 m ² /L
OEM colours (75 microns)	12 m ² /L
OEM Metallic (75 microns)	9..7 m ² /L
Temperature resistance, dry	°C
Continuous	93
Intermittent	121

Qualifications

NFPA – Class A

USDA – Incidental food contact

NORSOK M-CR-501 (coating system 1)

ISO 12944 (Class C5M)

Shell Specification ES/011 Vol. 2 Rev. 7

ACQPA France

"O" Class fire rating (UK Building Regulations) based on testing according to BS476 Parts 6 and 7 (fire propagation and flame spread).

Application Data

Apply over	Correctly prepared primed steel, galvanising or aluminium.
Surface preparation	
Steel / concrete	Refer application instructions for the specific primer used. Be sure primer is clean and dry when PSX700 is applied.
Method	Airless or conventional spray, brush or roller
Mixing ratio (by volume)	
Gloss finish	4 parts A to 1 part B
Semi gloss, OEM and	May vary, consult the label
Metallic	or customer service

Pot Life (Hours)

700 / mixed paint	32°C	21°C	10°C
	1 ½	4	6 ½

Typical Properties PSX 700

Physical

Abrasion (ASTM D4060)	
1kg load/1000 cycles	weight loss
CS-17 wheel	53 mg
Adhesion, Elcometer	
(ASTM D4541)	2700 psi
Elongation (ASTM D522)	14%

Performance

Salt spray (ASTM B117)	5500 hours
Face corrosion, blistering	None
Humidity (ASTM D2247)	5500 hours
Face corrosion, blistering	None
Gloss retention (ASTM G53) QUV-B bulb	
Greater than 50% gloss retention at 26 weeks	

PSX 700 Chemical Resistance Guide

Environment	Splash Spillage	Fumes & Weather
Acidic	E	E
Alkaline	E	E
Salt solutions		
Acidic	E	E
Neutral	E	E
Alkaline	E	E
Fresh water	E	E
Solvents	E	E
Petroleum products	E	E
F= Fair	G=Good	E=Excellent

This table is only a guide to show typical resistances of PSX 700. For specific recommendations, contact your PPG representative for your particular corrosion protection needs.

Systems Using PSX 700

Steel (blasted Sa 2 ½ +)	DFT	PSX 700 DFT
D9 SB Zinc Silicate	*65-75	75-125
Amercoat 68HS	70-85	75-125
Amercoat 471	70-85	75-125
Concrete **		
Amercoat 385	100-125	75-125
Amerlock 2	100-125	75-125
Aluminium – sweep blast		
Galvanised – sweep blast		
Amercoat 385	100-125	75-125
GRP (degrease & sand)		
Amercoat 476	75-100	50-75

* Tie coat recommended

** as per Application Instructions

Surface Preparation

Steel should be cleaned, free of oil and grease prior to abrasive blasting to Class 2 ½ or better AS/NZS 1627.4. Round off all rough welds and remove all weld spatter. Apply recommended primer as per instructions.

Environmental Conditions

Temperature	
Air	4 to 35°C
Surface	4 to 35°C
Relative humidity	40% minimum

Surface temperatures must be at least 3°C above dew point to prevent condensation during application and initial dry through. Low temperatures and relative humidity below 40% will extend cure time. Refer to the application guide for additional information.

Heat Curing

Allow PSX700 to dry to touch before exposing to curing temperatures above 60°C.

Drying Time (ASTM D1640) (Hours) @ 40% R.H. or above

	32°C	21°C	10°C
Touch (700)	1	2	4 ½
Through (700)	3	4 ½	8 ½

Recoat Time (hours) @ 40% R.H. or above

	32°C	21°C	10°C
Minimum	2	3	7
Maximum	None		

Thinner Thinner 140

Equipment cleaner Thinner 304

Shelf life when stored indoors at 4 to 38°C

Part A & B 2 years from shipment date

Numerical values are subject to normal manufacturing tolerances, colours and testing variances. Allow for application losses and surface irregularities.

Safety Precautions

Improper use and handling of this product can be hazardous to health.

Read each component's material safety data sheet before use. Mixed material has hazards of each component.

This product is only for industrial use by experienced applicators.

Keep away from children. When mixing or applying wear goggles and gloves and ensure good ventilation. When spraying, wear appropriate protective clothing and air supply. If splashed on skin, wash with soap and water. Adequate forced ventilation must be provided in confined spaces.

Technical information given verbally or in writing is based on knowledge and research, given in good faith and believed to be reliable, but no guarantee of accuracy is made or implied. Since methods and conditions of use are beyond our control, all merchandise is sold and received subject to the condition that our liability whether express or implied for any defect in quality, or for any lack of fitness for the specified use thereof, is limited to the return of the purchase price if written claim is made within 14 days from date of delivery. It is recommended that the user makes his or her own tests to determine the suitability of the product for his own requirements. Freedom from patent restrictions is not implied.

PPG INDUSTRIES PTY. LTD. McNaughton Road, Clayton VIC 3168 – 24 hr Emergency Telephone 1800 033111
Telephone : (03) 9263 6000, Customer service: 1300 659 666