



State of Illinois
Office of the State Fire Marshal

Checklist for Documenting UST Compatibility

SUBMIT THIS FORM WITH SUPPORTING DOCUMENTATION ATTACHED.

ALL COMPONENTS MUST BE LISTED IN DETAIL, & COMPATIBILITY DOCUMENTATION MUST CLEARLY IDENTIFY THE COMPONENTS.

Facility where equipment is located:

Facility Number: 2018610
Facility Owner: THATTAMATTON INC.
Facility Name: MILWAUKEE BP
Street Address: 4219 N. MILWAUKEE
City: CHICAGO
County: COOK

UST Information:

Tank ID Number: 8
Tank Material: Steel FRP ☒
Single Wall ☐ Double Wall ☒
Tank Volume: 4000
Tank Product: E85

Complete the checklist below, listing compatibility determination, method used and description. **All answers must be "YES" and supported with a sufficient description or supporting documentation** in order for your UST system to demonstrate compatibility with the blended fuel/biofuel product.

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
TANK	NO	☒ YES		XERXES Double Wall COMPARTMENT TANK DW-M3C-8FT, 4KX4KX4K ITEM # 208363-033230
PIPING (incl. shear valves, flex connectors)	NO	☒ YES		AMERON DURALOY 3000 LCX OPW 10P Shear VALVES 10P-0152ERS FRANKLIN fueling FLEX CONNECTORS FSMS 120 200 Double TRAC Flex connector UGF-FS-HM-FC0200-024
CONTAINMENT SUMPS	NO	☒ YES		BRAVO B-407-PP TANK Sump BRAVO B1000 Dispenser Sump
PUMPS (STPs/Suction; Dispensers, hoses, nozzles)	NO	☒ YES		STPAGR 75-VL2-15 FRANKLIN WAYNE HELIX CATLOW ELETE NOZZLE NEPLXXE85 BREAKAWAY CTM75-E85 SWIVEL CT200 3/4-E85

UST SYSTEM COMPONENTS	DOCUMENTATION DEMONSTRATING COMPATIBILITY WITH SUBSTANCE LISTED ABOVE		METHOD A or B (MAY USE BOTH)	DESCRIPTION OF COMPONENT TYPE, MODEL NUMBER, & NATIONAL LABORATORY CERTIFICATION, LISTING OR MANUFACTURER APPROVAL (ATTACH TO CHECKLIST)
RELEASE DETECTION EQUIPMENT	NO	☒		TLS 350 W/CSLD PROBE 846391-407 ALT FLUIDS LINE LEAK 848480-001 PLLD SENSOR 794380-323 PIPE SUMP SENSOR 794380-430 INTERSTITIAL
SPILL PREVENTION EQUIPMENT	NO	☒		FRANKLIN FUELING 705555111 CI-GRT
OVERFILL PREVENTION EQUIPMENT	NO	☒		OPW TISOM-412C DROP TUBE 615ALP-1020-EVR FILL ADAPTER 61USA-MA VAPOR SWIVEL ADAPTER 1711T 7085-EVR CAP 233-4422 EXTRACTOR CROSS
GASKETS & SEALS (installs after 10/13/18)	NO	☒		NO GASKETS THAT ARE NOT PART OF AN APPROVED DEVICE
JOINT DOPES & ADHESIVES (installs after 10/13/18)	NO	☒		GASOLINE SEAL

Methods:

- Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored.
- Equipment or manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the component is compatible with, and be from the equipment or component manufacturer.

Note: Owners and operators may find American Petroleum Institute's Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations*, useful in complying with the compatibility requirements.

In order to be in compliance with the 2015 federal UST regulation compatibility requirements for storing biofuels, you must keep documentation of compatibility of the UST system components listed on this page as long as you store the fuel.

For your records, you should update this checklist each time you repair or replace components of your UST system to ensure you have all the required compatibility documentation while storing biofuels.

Checklist Completed By: print name: _____ date completed: _____
signature: _____ position/title: _____

Appendix A: Tank Manufacturer Compatibility

Table A1: Tank Manufacturer Compatibility with Ethanol Blends

	E10	E100		E10	E100
Manufacturer	✓	✓	<i>Continued from below</i>		
FIBERGLASS^a			Highland Tank	✓	✓
Containment Solutions	✓	✓	J.L. Houston Co.	✓	✓
Owens Corning (single wall 1965-1994)	✓	✗	Kennedy Tank and Manufacturing Co., Inc.	✓	✓
Owens Corning (double wall 1965-July 1, 1990)	✓	✗	Lancaster Tanks and Steel Products	✓	✓
Owens Corning (double wall July 2, 1990-December 31, 1994)	✓	✓	Lannon Tank Corporation	✓	✓
Xerxes (single wall prior to February 1981)	✗	✗	Mass Tank Sales Corp.	✓	✓
Xerxes (single wall February 1981-June 2005)	✓	✗	Metal Products Company	✓	✓
Xerxes (single wall since July 2005)	✓	✓	Mid-South Steel Products, Inc.	✓	✓
Xerxes (double wall prior to April 1990)	✓	✗	Modern Welding Company	✓	✓
Xerxes (double wall April 1990 and after)	✓	✓	Newberry Tanks & Equipment, LLC	✓	✓
STEEL^b			Plasteela	✓	✓
Acterra Group Inc.	✓	✓	Service Welding & Machine Company	✓	✓
Caribbean Tank Technologies Inc.	✓	✓	Southern Tank & Manufacturing Co., Inc.	✓	✓
Eaton Sales & Service LLC	✓	✓	Stanwade Metal Products	✓	✓
General Industries	✓	✓	Talleres Industriales Potosinos, S.A. de C.V.	✓	✓
Greer Steel, Inc.	✓	✓	Tanques Antillanos C. x A.	✓	✓
Hall Tank Co.	✓	✓	Watco Tanks, Inc.	✓	✓
Hamilton Tanks	✓	✓	We-Mac Manufacturing Company	✓	✓

Letters stating compatibility:

a. Petroleum Equipment Institute

www.pei.org/ust-component-compatibility-library

b. Steel Tank Institute

www.steeltank.com/FabricatedSteelProducts/ShopFabricatedTanks/SteelAndAlternativeFuels/tabid/465/Default.aspx

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B1. Pipe Manufacturer Compatibility with Ethanol Blends

Manufacturer	Product	Model	Ethanol Compatibility
<i>Piping—All Companies have UL 971 listing for E100</i>			
Advantage Earth Products	Piping	1.5", 2", 3", 4"	E0-E100
Brugg	Piping	FLEXWELL-HL, SECON-X, NITROFLEX, LPG	E0-E100
Franklin Fueling	Piping	Franklin has third-party certified piping compatible with up to E85. Contact manufacturer for specific part numbers.	E0-E85
OPW	Piping	FlexWorks, KPS, Pisces (discontinued)	E0-E100
NOV Fiberglass	Piping	RedThread IIA, Ameron Dualoy	E0-E100
NUPI	Piping	Smartflex	E0-E100
OMEGAFLEX	Piping	DoubleTrac (brass and stainless steel fittings)	E0-E100

Letters stating compability:

Petroleum Equipment Institute

www.pei.org/ust-component-compatibility-library

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B2. Associated UST Manufacturer Compatibility with Ethanol Blends

Manufacturers introduce and discontinue models over time. If you do not see your equipment on this list please contact the manufacturer. Note X in these lists can be substituted for any value.

Federal code requires compatibility of this equipment with specific fuels. This is achieved through either third-party listing or a letter from the manufacturer stating compatibility. Husky has UL listing for E85. The following companies have issued letters stating compatibility: Bravo, Morrison Brothers, Vaporless Manufacturing, Veeder-Root, and Western Fiberglass. Please contact other manufacturers for a compatibility letter or to inquire if they have UL E85 listed products. Compatibility letters are available at: www.pei.org/ust-component-compatibility-library

Manufacturer	Product	Model	Ethanol Compatibility
Bravo Systems	Fiberglass fittings	Series F, FF, FPE, FR, Retrofit-S, D-BLR-S, D-INR-S, FLX, FLX-INR, FPS, TBF	E0-E100
Bravo Systems	Spill buckets	B3XX	E0-E100
Bravo Systems	Tank sumps & covers	B4XX	E0-E100
Bravo Systems	Transition sumps	B5XX, B6XX, B7XX, B8XX	E0-E100

Table B2 continued on next page

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B2 (continued). Associated UST Manufacturer Compatibility with Ethanol Blends

Manufacturer	Product	Model	Ethanol Compatibility
Bravo Systems	Under dispenser containment sumps	B1XXX, 7XXX, B8XXX, B9XXX	E0-E100
Cimtek	Filter	300MB-10, 300MB-30, 400MB-10, 400MB-30, 475XLMB-10	E0-E15
Cimtek	Filter	300BHA-01, 400BHA-01, 400BHA-05, 800BHA-01	E0-E85
Clay and Bailey	AST emergency vent	354, 365, 366, 367, 368, 369, 370	E0-E85
Clay and Bailey	AST manhole	API-650	E0-E85
Clay and Bailey	AST overfill prevention valve	1228	E0-E85
Clay and Bailey	AST spill containment	all	E0-E85
Clay and Bailey	Fill cap	94, 232, 233, 234, 235, 254	E0-E85
Franklin Fueling	All <i>SEE CHECKLIST FOR PART #</i>	Franklin has third-party certified equipment compatible with up to E85. Contact manufacturer for specific part numbers.	
Husky	Pressure vacuum vents	4620, 4885, 5885, 11730, 11735, 11740	E0-E85
Morrison Bros	Anodized farm nozzle	200S	E0-E85
Morrison Bros	Anti-syphon valve	912	E0-E85
Morrison Bros	AST adaptor	927	E0-E85
Morrison Bros	Ball valves	691BSS	E0-E85
Morrison Bros	Caps	305C	E0-E85
Morrison Bros	Clock gauge with alarm	918	E0-E85
Morrison Bros	Clock gauges	818	E0-E85
Morrison Bros	Combination vent/overfill alarm	922	E0-E85
Morrison Bros	Diffuser	539TO, 539TC	E0-E85
Morrison Bros	Double tap bushing	184	E0-E85
Morrison Bros	Drop tubes	419A	E0-E85
Morrison Bros	Emergency vents	244	E0-E85

Table B2 continued on next page

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B2 (continued). Associated UST Manufacturer Compatibility with Ethanol Blends

Manufacturer	Product	Model	Ethanol Compatibility
OPW	AST anti-siphon valve	199ASV	E0-E85
OPW	AST ball valve	21BV SS	E0-E85
OPW	AST check valve	175, 1175	E0-E85
OPW	AST emergency shut off valve	178S	E0-E85
OPW	AST emergency vent	201, 202	E0-E85
OPW	AST emergency vent	301	E0-E85
OPW	AST mechanical gauge	200TG	E0-E85
OPW	AST overfill prevention valve	61fSTOP A or M versions	E0-E85
OPW	AST overfill prevention valve	61fSTOP	E0-E25
OPW	AST pressure vacuum vent	523V, 623V	E0-E100
OPW	AST solenoid valve	821	E0-E25
OPW	AST spill container	211-RMOT, 331, 332	E0-E85
OPW	AST swing check valve	all	E0-E85
OPW	AST tank alarm	444TA	E0-E85
OPW	AST vapor adaptor	1611AVB-1625	E0-E100
OPW	AST vapor cap	1711T-7085-EVR, 1711LPC-0300	E0-E100
OPW	Ball float vent valve	53VML, 30MV	E0-E100
OPW	Check valve	70, 70S	E0-E100
OPW	Dispenser sumps & accessories	FlexWorks	E0-E100
OPW	Drop tube	61FT	E0-E25
OPW	Drop tube	61T, 61TC, 61TCP	E0-E15
OPW	Drop tube	61TSS	E0-E100
OPW	Extractor fittings and plug	233, 233VP	E0-E100
OPW	Face seal adaptor (threaded riser adaptor)	FSA	E0-E100
OPW	Fill adaptor-side	61AS	E0-E100

Table B2 continued on next page

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B2 (continued). Associated UST Manufacturer Compatibility with Ethanol Blends

Manufacturer	Product	Model	Ethanol Compatibility
OPW	Fill adaptor-top	633T, 633TC	E0-E100
OPW	Fill Cap	634TT-7085-EVR, 634LPC, 634TT-4000	E0-E100
OPW	Fill cap-side	62TT	E0-E100
OPW	Fill-swivel adaptor	61SALP-MA, 61SALP-1020-EVR	E0-E100
OPW	Flexible connectors	FCxx	E0-E100
OPW	Float kit	61SOK-0001	E0-E15
OPW	Jack screw	61JSK, 71JSK	E0-E100
OPW	Manhole	Conquistador, Fiberlite, 104A, 104FG, 104C, 6110, 6120	E0-E100
OPW	Monitoring well cap kit	634TTM	E0-E100
OPW	Monitoring well probe cap	62M, 116M, 62M-MA	E0-E100
OPW	Multi-port spill containment	6511, 6421, 6511, 6521, 6561, 6571, Fiberlite	E0-E100
OPW	Overfill prevention valve	71SOM, 61SOM, 61SOCM-4000	E0-E100
OPW	Overfill prevention valve	71SO, 71SO-C, 71SO-CT, 61SOC, 61SOP, 61SOR	E0-E15
OPW	Pressure vacuum vent	523V, 623V	E0-E100
OPW	Spill container (bucket)	1-2100, 1SC-2100, 1C-2100, 1C-2200, EDGE, '1-2105, 101-BG2100	E0-E100
OPW	Tank bottom protectors	6111, 61TP	E0-E15
OPW	Tank sumps & accessories	Fiberlite, FlexWorks	E0-E100
OPW	Transition sumps & accessories	FlexWorks	E0-E100
OPW	Vapor adaptor	1611AV, 1611AVB	E0-E100
OPW	Vapor Cap	1711T-7085-EVR, 1711LPC	E0-E100
OPW	Vapor-swivel adaptor	61VSA-MA, 61VSA-1020-EVR	E0-E100
Vaporless Manufacturing	Leak detector	99LD-2000/2200/3000 without stainless steel tubing/fittings	E0-E20
Vaporless Manufacturing	Leak detector	99LD-2000/2200/3000 with stainless steel tubing/fittings	E0-E100

Table B2 continued on next page

Appendix D: UL-Certified E25 and E85 Fuel Dispensing Equipment List

Table D1 (continued). UL-Certified E25 & E85 Fuel Dispensing Equipment List

Manufacturer	Equipment	Model
Wayne	Dispenser (UL listing up to E25)	Helix Series, Models H, followed by N or W, followed by LM or LU, followed by 1, 2, 3, or 4, followed by 1, 2, 3, 4, or 5, followed by 1, 2, 3, or 4, followed by 1 or 2, followed by P and/or R, V.
Gasboy	Dispenser	Atlas E85 9872KX
OPW	Breakaway	OPW66V-0492 (UL listed E0-E85); 66V-0300 (UL listed E0-E25)
OPW	Swivel Connector	241TPS-0492 (UL listed E0-E85); 241TPS-0241 (UL listed E0-E25); 241TPW-1000 (UL listed E0-E25); 241TPW-0492 (UL listed E0-E25)
OPW	Nozzle	21GE
OPW	Nozzle	21GE-A
OPW	Shear Valves	10P-0152E85
OPW	Shear Valves	10P-4152E85
Veyane	Hose	Flexsteel Futura Ethan-ALL
Franklin Fueling	Submersible Turbine Pump	Basic Model designation STP with or without T, with AG, with or without F, with or without H, with or without K, with or without M, with or without R, with or without V, with or without W, followed by 33, 75, 150, 200, VS2, or VS4, may be followed by A or B or C, followed by -XXX (where XXX is numeric characters or VL1, VL2, or VL3 to indicate model length), and then followed by two characters (to indicate riser length). All models have been evaluated for use with gasoline-ethanol blends of 0% to 85% ethanol with gasoline
Franklin Fueling	Submersible Turbine Pump	Basic Model designation IST (with AG is implied) with or without T, with or without F, with or without K, with or without M, with or without R, with or without V, with or without W, with or without VS4 (without indicates VS2 is implied), followed by -XXX (where XXX is numeric character 1, 2, or 3 or VL1, VL2, or VL3 to indicate model length), and then followed by two characters (to indicate riser length). All models have been evaluated for use with gasoline-ethanol blends of 0% to 85% ethanol with gasoline
Red Jacket	Automatic Tank Gauge	Pro Max FJ PX-2, ProPlus PP2
Red Jacket	Submersible Turbine Pumps	STP AG07551 FJ2, AGP15021 RJ2, AGP200S1-3 RJ2
Veeder-Root	Automatic Tank Gauge	ATG/TLS TLS-300C, TLS-350 Plus, TLS-350R
Veeder-Root	Tank Probes	Mag Plus Stainless Steel Probe 846391-4xx to 6xx, Mag Plus Probe 847390-xxx
Veeder-Root	Sensors	794380-323, 794380-344, 794380-345, 794380-430

Table D1 continued on next page.

Appendix B: Pipe and Associated UST Manufacturer Compatibility

Table B2 (continued). Associated UST Manufacturer Compatibility with Ethanol Blends

Manufacturer	Product	Model	Ethanol Compatibility
OPW	Fill adaptor-top	633T, 633TC	E0-E100
Vaporless Manufacturing	Overfill prevention valve	OPF-2/3 with stainless steel tubing/fittings	E0-E100
Veeder-Root	Continuous interstitial tank system	P/N 857280-100, 857280-200, 857280-30X	E0-E15
Veeder-Root	Electronic line leak detector	Series 8484, 8590	E0-E15
Veeder-Root	Ground water monitoring	P/N 794380-621, 794380-622, 794380-624	E0-E15
Veeder-Root	Interstitial and secondary containment monitoring	P/N 794380-XXX, 794390-XXX, 847990-00X, 857080-XXX	E0-E15
* Veeder-Root	Interstitial and secondary containment monitoring	P/N 794380-321, 794380-323, 794380-333, 794380-344, 794380-345, 794380-351, 794380-430	E0-E85
Veeder-Root	Magnetostrictive probe	Mag Plus Series 8463XX, Mag Series 8473XX	E0-E15
Veeder-Root	Tall tank probe	Mag-FLEX 889560-XXX, MAGXL-XXX	E0-E90
Veeder-Root	Vapor monitoring	P/N 394390-700	E0-E15
Western Fiberglass	Co-flex piping	all	E0-E100
Western Fiberglass	Cuff fittings	all	E0-E100
Western Fiberglass	Sumps (dispenser, tank, transition, vapor, vent)	all	E0-E100
Western Fiberglass	Co-flow hydrostatic monitoring systems	all	E0-E100

E85
SEE
LETTER
↑↑

Letters stating compability:

Petroleum Equipment Institute
www.pei.org/ust-component-compatibility-library

Appendix C: Dispenser, Hanging Hardware, Shear Valve, and Submersible Turbine Pump Manufacturer Compatibility

Table C. Dispenser, Hanging Hardware, Shear Valve, and Submersible Turbine Pump Manufacturer Compatibility

Manufacturers introduce and discontinue models over time. If you do not see your equipment on this list please contact the manufacturer.

Manufacturer	Product	Model	Ethanol Compatibility
UL E25 and E85 Listed Equipment			
Gilbarco	Dispenser	An option on remote control dispenser Models NAO, NA1, NA2, NA3, NG1, NG6, NLO, NL1, NL2, and NL3. Models NG1, NG6, and NLO-NL3 are X+1 configurations where X is a number of blendable grades running through one hose on each side and the +1 indicates a dedicated, independent, set of hydraulics. E25 may only be on the +1 side (no ethanol blending). For such split-type dispensers, the independent non-E25 hydraulics may be constructed.	E0-E25
Gilbarco	Dispenser	An option on remote control dispenser Models NAO, NA1, NA2, NA3, NNO, NN1, NN2, NN3, G1, G6, LO, L1, L2, and L3 and NJ4. Models NG1, NG6, and NLO-NL3 are X+1 configurations where X is a number of blendable grades running through one hose on each side. Model NJ4 is a 3+2 grade (double blender) with two distinct fuel trees as described above, and the +1 indicates a dedicated, independent, set of hydraulics. Hydraulics trees marked as suitable for E85 are suitable for blending mid-level grades.	E0-E85
Wayne	Dispenser	Ovation2 B12//9 and B23//9	E0-E25
Wayne	Dispenser	Ovation 2 EB23/4, EB23/5/M Dual Blender, EB23/5/M5 Double Dual Blender <u>Helix 3-1-1 H(W/LU)43-43E, 3-1-1 H(W/LU)45-43E/M5 Dual Blender, 3-1-1 H(W/LU)35-33E Double Dual Blender</u>	E0-E85
Franklin Fueling	Shear valve	Franklin has third-party certified shear valves compatible with up to E85. Contact manufacturer for specific part numbers.	E0-E85
Franklin Fueling	Submersible turbine pump	Franklin has third-party certified STPs compatible with up to E85. Contact manufacturer for specific part numbers.	E0-E85
Husky	Nozzle	X E25, X E25 Cold Weather, XS E25, XS E25 Cold Weather	E0-E25
Husky	Nozzle	X E85, X E85 Cold Weather, XS E85, XS E85 Cold Weather	E0-E85
Husky	Breakaway	E25 Safe-T-Breaks	E0-E25
Husky	Breakaway	E85 Safe-T-Breaks	E0-E85

Table C continued on next page

Appendix C: Dispenser, Hanging Hardware, Shear Valve, and Submersible Turbine Pump Manufacturer Compatibility

Table C (continued). Dispenser, Hanging Hardware, Shear Valve, and Submersible Turbine Pump Manufacturer Compatibility

Manufacturers introduce and discontinue models over time. If you do not see your equipment on this list please contact the manufacturer.

Manufacturer	Product	Model	Ethanol Compatibility
UL E25 and E85 Listed Equipment			
OPW	Balance Adaptor	28CS	E0-E25
OPW	Breakaway	66V-0492	E0-E85
OPW	Breakaway	66V-030RF	E0-E25
OPW	Nozzle	11BP*E85	E0-E85
OPW	Nozzle	11AP*E25 and 11BP*E25 Series Nozzles	E25
OPW	Swivel	241TPS-75RF	E25
OPW	Swivel	241TPS-0492	E0-E85
OPW	Shear valve	10 series	E0-E100
OPW	Shear valve vapor	60VS	E0-E100
Manufacturer approved; equipment is not UL listed for blends above E10			
Veyance	Hose	Flexsteel Futura Ethan-ALL	E0-E85
Husky	Swivel	E85	E0-E85
IRPCO	Hose dispenser	Steelflex Ultra Hardwall, Softwall (2 Braid, 4SP), Marina	E0-E15
IRPCO	Hose transfer	Kanapower ST, RED FLEXTRA, FLEXWING Versafuel	E0-E15
Veeder-Root	Submersible turbine pump	Redjacket Maxxum 410763-XXX (MXP300JX-XXX or MXP500JX-XXX)	E0-E20
Veeder-Root	Submersible turbine pump	Redjacket AG models	E0-E100
Veyance	Hose dispenser	Flexsteel Futura	E0-E15



April 20, 2016

Subject: Gilbarco - Catlow, LLC Fuel Compatibility Statement

Catlow hanging hardware equipment is compatible with the percent content of the listed alternative fuels.

Equipment Type	Series or Part Number (P/N)		Ethanol blend %
Nozzle	Elite - NEPNLXX-E85, NEPLXX-E85, NENLXX-E85, NELXX-E85		85%
Magnetic Breakaway	CTM75-E85		85%
Swivels	C720 ¾-E85		85%
Nozzles	Elite - NEPNLXX, NEPLXX, NENLXX, NELXX		15%
Magnetic Breakaway	CTM75		15%
Swivels	C720 ¾		15%

Compatibility has been determined by testing, industry research and/or engineering judgement. Any warranty claims shall be honored for above models in accordance with our standard policy.

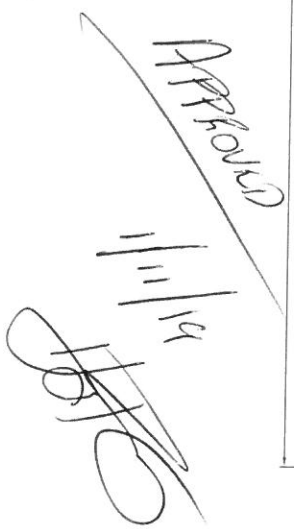
Feel free to contact us if further assistance or clarifications are needed.

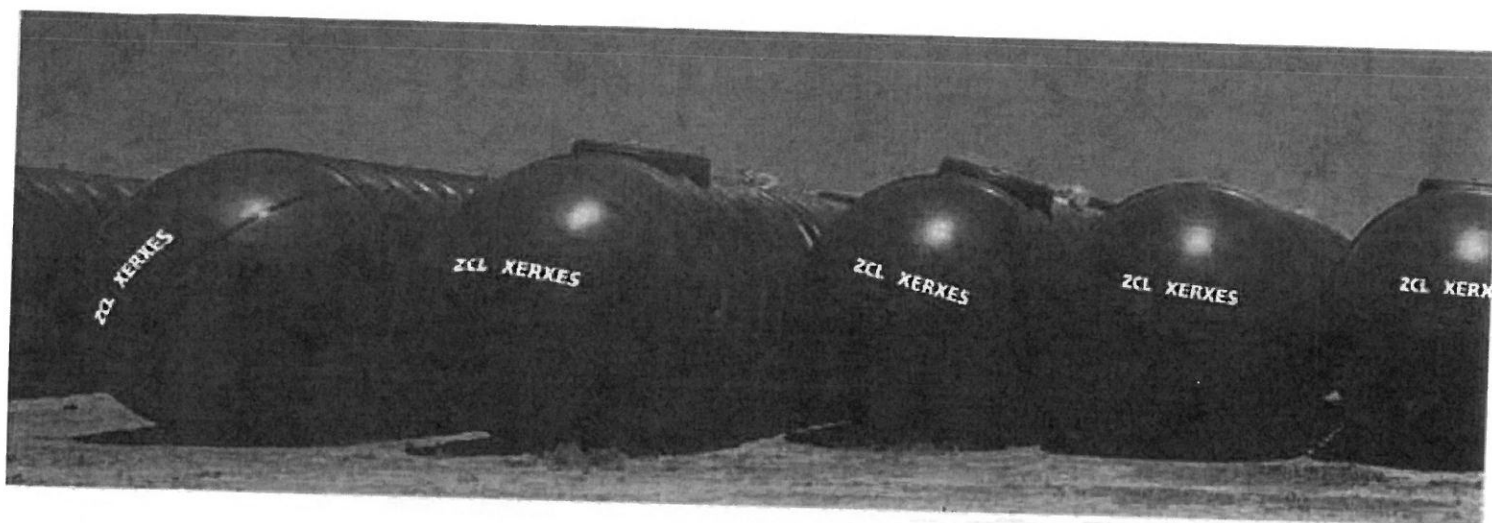
Best Regards,

Cameron Camack

General Manager, Hanging Hardware

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WHY CHOOSE A FIBERGLASS TANK?

Best Product Investment

Fiberglass tanks have rapidly grown in popularity since they were first introduced more than 50 years ago as the corrosion-resistant alternative to underground steel tanks that were rusting, leaking and creating serious environmental damage. Major oil companies and large fuel marketers were the first to realize the benefits of fiberglass over steel for underground tanks. Today, a large majority of North American fuel marketers choose fiberglass, and the preference for fiberglass reaches all segments of the market, including industrial, commercial and government accounts who specify, install and own underground storage tanks. The growing understanding of fiberglass' benefits goes well beyond external corrosion protection with the recognition that fiberglass is corrosion-resistant, both inside and out.

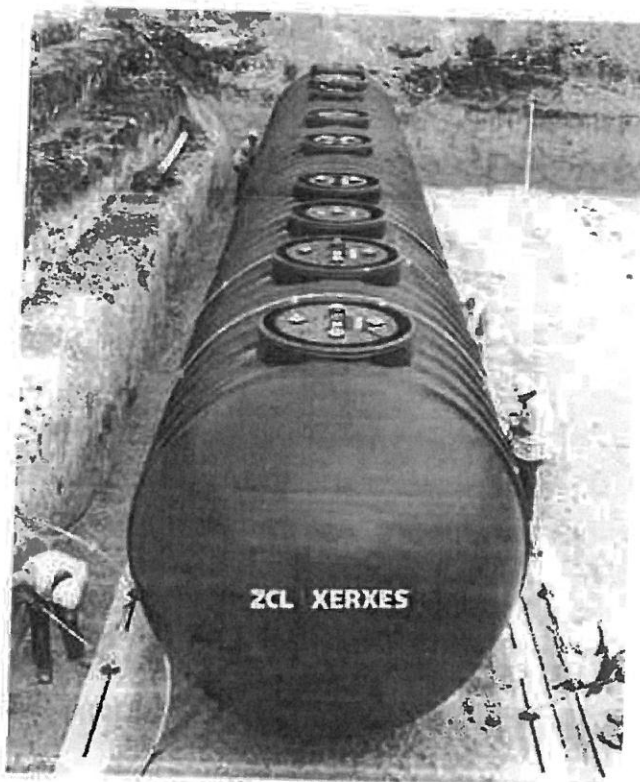
FIBERGLASS OUTPERFORMS STEEL

CORROSION RESISTANCE

It's now common knowledge that fiberglass tanks are protected from external rusting due to corrosive soil environments. Today, the widespread use of ethanol-blended gasoline (E10, E15, E85), biodiesel fuels and ultra-low sulfur diesel (ULSD) has shifted the concern about corrosion to include internal protection. Most significantly, new ethanol-blended fuels raise questions about the compatibility of storage tank materials with stored fuel. When today's buyers compare fiberglass and steel tanks they see the clear advantage of our fiberglass tanks, which are not vulnerable to aggressive internal corrosion caused by storage of today's biofuels. The fact that fiberglass tanks are corrosion-resistant both inside and out give them a distinct advantage over steel tanks.

FUEL COMPATIBILITY

Customers today want to be confident that they are choosing a tank material that is compatible with the new fuels as well as traditional fuels. Our UL-listed (1316) and ULC-listed (S615) double-wall fiberglass tanks are UL-compatible with 0-100 percent ethanol storage. They are also warranted for the full range of ethanol-blended gasoline. The correlating UL listing (58) for steel fuel tanks does not require testing for ethanol compatibility. This third-party compatibility verification for fiberglass tanks – that steel tanks do not have – makes fiberglass the clear and superior choice for fuel tanks.





Veeder-Root
125 Powder Forest Drive
P. O. Box 2003
Simsbury, CT 06070-7684
USA
Phone: (860) 651-2700
Fax: (860) 651-2719

January 13, 2011

Concerned Regulatory Agency

Re: Veeder-Root Compatibility with E85

To whom it may concern:

Veeder-Root TLS branded automatic tank gauging products have UL listings for product safety. The wetted component materials used with the below listed products are deemed by Veeder-Root to be compatible with ethanol 85 applications.

<u>VR Part Number</u>	<u>Description</u>
848480-003	Pressurized Line Leak Detector
846391-4XX, 5XX, 6XX	Mag Plus Probes for Alternative Fluids without water detection
846400-004,304,104	Mag Float Kit (5" cable) for Alternative Fluids 4", 3" & 2" floats
846400-014,314,114	Mag Float Kit (10" cable) for Alternative Fluids 4", 3" & 2" floats
846400-024,324,124	Mag Float Kit (20" cable) for Alternative Fluids 4", 3" & 2" floats
794380-323	Position Sensitive Pan/Sump Sensor
794380-344	MicroSensor
794380-345	Interstitial Solid State Sensor for Fiberglass Tanks
794380-430	Interstitial Sensor for Steel Tanks

The following sensor is exposed to Brine and is not of concern in an E85 application.

794380-301 Hydrostatic Sensor

Please contact Veeder-Root Technical Support at 1-800-323-1799 with further questions.

Regards,

Bob Moss
VP Engineering

Mag Plus Magnetostrictive Probe and Float Kit Fluid Compatibility Guide, continued

Mag Plus Magnetostrictive Probes for Alternative Fluids without water detection with leak detection (Probe Model No. 846391-4xx, 846397-4xx, 846391-5xx, 846397-5xx) and *Mag Plus* Magnetostrictive Probes for Alternative Fluids without water detection* and no leak detection (Probe Model No. 846391-6xx, 846397-6xx).

Recommended for Inventory Monitoring and Leak Detection:			
Product	Float Kit	Product	Float Kit
Alcohol (<=100% Alcohol)	Alternative Fluids	Ethanol (<=100% Alcohol) Includes E85	Alternative Fluids
Methanol (<=100% Alcohol)	Alternative Fluids	MTBE (<=100% Ether)	Alternative Fluids
ETBE (<=100% Ether)	Alternative Fluids	Used Oil	Alternative Fluids
Recommended for Inventory Monitoring Only (Not Recommended for Leak Detection):			
Product	Float Kit	Product	Float Kit
Ethylene Glycol	Alternative Fluids	Fuel Oil #6	Alternative Fluids
Windshield Washer Fluid	Alternative Fluids	Propylene Glycol	Alternative Fluids
DEF (AdBlue)	Alternative Fluids		

Use of Magnetostrictive Probes in Fluids Not Listed Above

Veeder-Root will not be responsible for probe performance or product contamination in fluids other than those specifically identified in this guide. Veeder-Root does not recommend the use of its probes for tank leak detection other than for the products specifically identified in this guide.

3/3



DEFINING | WHAT'S NEXT

45 search results for "E85 "

71SOM Vapor Tight Overfill Prevention Valve for Alcohol (/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/71som-vapor-tight-overfill-prevention-valve-for-alcohol)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/71som-vapor-tight-overfill-prevention-valve-for-alcohol

71SOM Vapor Tight Overfill Prevention Valve for Alcohol, OPW Retail Fueling 71SOM for use with E85 Nickel plated aluminum, anodized aluminum, stainless steel and other compatible materials, excavation, manholes or vent piping are required. CARB /EVR Approved for use with E85 Constructed, Installation Tool 2.5 1 71JSK-44MA Jack Screw Kit EVR Approved for E85 1.5 0.7 71JSK-4RMT Remote Fueling Jack Screw Kit EVR Approved for E85 1 0.5 NOTE: The 71SOM Overfill

233 Series Extractor Fittings (/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/extractor-fittings/233-series-extractor-fittings)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/extractor-fittings/233-series-extractor-fittings

% Ethanol (E85) or Methanol (M85) Body: Duragard® Coated Cast Iron Cage Assembly: ZA12 Zinc/Alloy, Fittings are EVR Approved for E85 233 Series Extractor Fittings FlexWorks Vent Pipe Installation

61T Drop Tube (/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/61t-drop-tube)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/61t-drop-tube

17 5.19 E85 EVR Approved Drop Tube Length Product No. in. mm lbs

OPW 241TPS Series Hose Swivels (/products/us/retail-fueling-products/above-ground-products/standard-dispensing-equipment/swivels-and-breakaways/multi-plane-swivels/opw-241-tps-series-hose-swivel/opw-241tps-series-hose-swivels)



DEFINING | WHAT'S NEXT

45 search results for "E85 "

[62M-MA Monitoring Cap EVR Approved for E85 \(/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/caps-adaptors/62m-ma-monitoring-cap-evr-approved-for-e85\)](/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/caps-adaptors/62m-ma-monitoring-cap-evr-approved-for-e85)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/caps-adaptors/62m-ma-monitoring-cap-evr-approved-for-e85

62M-MA Monitoring Cap EVR Approved for E85, OPW Retail Fueling 62M-MA for use with E85 CARB /EVR Approved for use with E85 Anodized aluminum construction Includes 3/8" Pipe Plug and 3/8" Grommet Fitting Compatible with 1/2" Grommet (sold separately) Product No. Body Cap Grommet Riser Thread Weight in. mm in. mm lbs. kg 62M-MA Anodized Aluminum, 62M-MA Monitoring Probe Cap EVR Approved for E85

[61T-SS Drop Tube E85 EVR Approved \(/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/61t-ss-drop-tube-e85-evr-approved\)](/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/61t-ss-drop-tube-e85-evr-approved)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/overfill-prevention-valves/61t-ss-drop-tube-e85-evr-approved

61T-SS Drop Tube E85 EVR Approved, OPW Retail Fueling 61T-SS for use with E85 EVR Approved for use with E85 Stainless Steel construction 4" Diameter in 12' or 17' Lengths - Accommodate a variety of tank diameters and fill riser pipe sizes. Drop Tube Length Product No. in. mm lbs. kg ft. m 61T-SS-0412 4 102 6.18 2.80 12 3.66 61T-SS-0417 4 102 13 5.9 17 5.19 61T-SS Series Drop Tube

[71JSK Series Jack Screw Kit EVR Approved for E85 \(/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/spill-containers/71jsk-series-jack-screw-kit-evr-approved-for-e85-\)](/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/spill-containers/71jsk-series-jack-screw-kit-evr-approved-for-e85-)

/products/us/retail-fueling-products/below-ground-products/underground-storage-tank-equipment/spill-containers/71jsk-series-jack-screw-kit-evr-approved-for-e85-

71JSK Series Jack Screw Kit EVR Approved for E85 , OPW Retail Fueling 71JSK for use with E85 Product # Description 71JSK-4RMT Remote Fueling Jack Screw Kit E85 EVR Approved 71JSK-44MA Jack Screw Kit for Cast Iron Base Spill Buckets E85 EVR Approved CARB /EVR Approved for use with E85 Nickel Plated Aluminum Works in conjunction with our 71SOM for remote fueling applications Includes cages for both cast iron and composite base spill containers Eliminates notorious leak

AG Compatible Submersible Turbine Pumps

Intelligent Submersible Turbine Pumps

Model	Description	Model Length
ISTM-1	2 hp variable speed with MagShell™	59"-87"
ISTM-2	2 hp variable speed with MagShell™	90"-151"
ISTM-3	2 hp variable speed with MagShell™	122"-213"
ISTMVS4-VL1	4 hp variable speed with MagShell™	64"-92"
ISTMVS4-VL2	4 hp variable speed with MagShell™	95"-156"
ISTMVS4-VL3	4 hp variable speed with MagShell™	127"-218"

2 hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length
STPAGM200-VL1	2 hp AG fixed speed with MagShell™	63"-91"
STPAGM200-VL2	2 hp AG fixed speed with MagShell™	94"-154"
STPAGM200-VL3	2 hp AG fixed speed with MagShell™	126"-217"
STPAGHM200-VL1	2 hp AG high pressure fixed speed with MagShell™	63"-92"
STPAGHM200-VL2	2 hp AG high pressure fixed speed with MagShell™	94"-155"
STPAGHM200-VL3	2 hp AG high pressure fixed speed with MagShell™	126"-218"

1½ hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length
STPAG150-VL1	1½ hp AG fixed speed	60"-88"
STPAG150-VL2	1½ hp AG fixed speed	91"-152"
STPAG150-VL3	1½ hp AG fixed speed	123"-214"
STPAGH150-VL1	1½ hp AG high pressure fixed speed	61"-89"
STPAGH150-VL2	1½ hp AG high pressure fixed speed	92"-152"
STPAGH150-VL3	1½ hp AG high pressure fixed speed	124"-215"

1/3 and 3/4 hp Fixed Speed Submersible Turbine Pumps

Model	Description	Model Length
STPAG33-VL1	1/3 hp AG fixed speed	55"-83"
STPAG33-VL2	1/3 hp AG fixed speed	86"-147"
STPAG33-VL3	1/3 hp AG fixed speed	118"-209"
STPAG75-VL1	3/4 hp AG fixed speed	57"-86"
STPAG75-VL2	3/4 hp AG fixed speed	88"-149"
STPAG75-VL3	3/4 hp AG fixed speed	120"-212"

Fixed Length Submersible Turbine Pumps

Model	Description	Model Length
STPAG33	1/3 hp fixed speed	37"-132"
STPAG75	¾ hp fixed speed	37"-132"
STPAG150	1½ hp fixed speed	37"-132"
STPAGH150	1½ hp high pressure fixed speed	37"-132"
STPAGM200	2 hp fixed speed with MagShell™	37"-132"
STPAGHM200	2 hp high pressure fixed speed with MagShell™	37"-132"

FE PETRO



Franklin Fueling Systems

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FFS-0129 01-10



THE DEFENDER SERIES®

SPILL CONTAINMENT

The field-proven Defender Series® has gone toe-to-toe with the worst conditions the world's forecourts could throw at it and came out with a reputation for dependability and versatility. So how could you possibly improve upon the most dependable spill containment series on the market? For starters, we've integrated it into our rugged multiport platform and outfitted it for complete biofuel compatibility. The best defense just got better.

Highlights

Spills In, Water Out

The foremost function of a spill container is to keep spills in and keep water out all while enduring constant attack from weather, forecourt traffic and continuous fuel delivery handling. The rugged concrete ring, sturdy snow plow ring, integrated liquid dam and gasketed lid keep the Defender Series® capturing spills and repelling water intrusion for maximum protection of your liquid investment.

Ready for Anything

Regulations and requirements are constantly changing. The Defender Series® lets you choose a single wall spill containment option with the ability to upgrade to a double wall spill containment option in the future for twice the protection. The upgrade is simple and can be carried out without having to break concrete; an expense and hassle that no one wants to encounter.

Easy Installation and Retrofit

Let's face it; installations don't always go exactly as planned. Installers will love the variable height adjustment feature of the Defender Series®, which allows for 3 inches of adjustment in installation height, making it easy to ensure proper grade level installation. This feature also allows for easy replacement of most any other spill container in retrofit applications.

Interstitial Monitoring (double-wall versions only)

The peace of mind in knowing your double wall spill containment is performing as it should is priceless. The Defender Series® features two options, both mechanical and electronic, to receive immediate confirmation of the integrity of the interstitial space so you can spend less time worrying about the possibility of leaks.

Multiport Platform

Franklin has integrated the direct bury Defender Series® spill container into its multiport platform for a new level of protection and complete ease of access. With several layout configurations to choose from, the multiport platform lets you incorporate all of your spill containment into one space-saving area.

Multiport & Direct Bury Upgrade

With the multiport platform you have the option to choose single wall spill containers now with the freedom to upgrade to double wall in the future. When the time is right, simply unbolt the multiport top and replace the spill containers. Replacement is different for multi vs direct bury. In direct fill, you unbolt the plow ring and remove the bucket; on multiports you remove the large treadplate lid and change out the buckets.

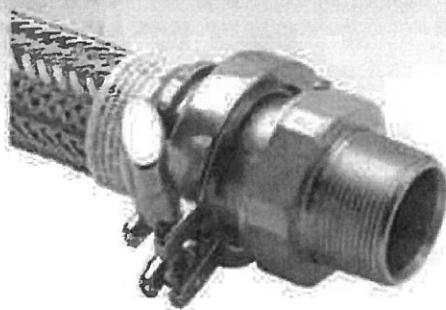
Simple Maintenance

Maintenance with the Defender Series® is a breeze. With the direct bury models, you can easily replace interior containment without having to break concrete. The Defender Series® plow ring bolts are completely protected – located inside the interior of the container shielding them from the potential wear and tear of the forecourt environment.

Fully Biofuel Compatible

The Defender Series® incorporates only the highest-grade biofuel compatible components, which allow for use with petroleum, petroleum/alcohol blends (including E-85), diesel and biodiesel.





FIREFLEX FLEXIBLE CONNECTORS

Since their introduction in 1995, FLEX-ING™ FIREFLEX Flexible Connectors have quickly become the industry standard and benchmark for quality as a means to easily connect pipework system to other systems components such as submersible pumps or shear valves. The benefit of their use is undeniable. They have quickly become an integral part of any installation. Installers love their ease of installation while station owners have come to depend on their durability and how easy they make regular maintenance. With tons of available options, Franklin Fueling Systems has the right connector to fit any application.

Highlights

Flexibility is Key

When it comes to Flexible Connectors, flexibility is key. The tight working conditions found in dispenser and tank sumps provide little room for installers to work, motivating some manufacturers of flexible connectors to sacrifice overall strength for flexibility. With FLEX-ING™ FIREFLEX Flexible Connectors, there's no need to compromise. Their corrugated fuel contact layers feature a 25% thicker metal construction and gain flexibility from having more corrugations per foot rather than thinner walls.

Quality Construction

Enclosing the corrugated fuel contact layer is a stainless steel braid that is manufactured from only high-grade stainless steel. The precision braiding process used to manufacture the braid gives strength while still maintaining flexibility. These layers are tied together with a hand-welded coupler ring, and are factory pressure-tested for zero leaks.

Specifications

- USA NFPA 30-A fire rated
- All metal construction means one flexible connector for both above and below ground applications
- An 18-8 alloy outer shell, 321 Stainless Steel inner core provides a long service life
- Thick, schedule 80 hex end fittings protect against deformation of the ends
- 100% pressure tested to assure quality
- UL 2039 listed for 50psi working pressure
- EZ FIT clamp and gasket are included with each assembly

Ready for Anything

FLEX-ING™ FIREFLEX Flexible Connectors are available in a multitude of end connections to ensure the right fit for any application - including tees, elbows and FRP transitions. Standard male and female end connections with integrated hex-head surfaces provide easy installation and tightening. The male swivel end connection option allows for the ultimate in ease of installation. The male swivel end connection option features a three-gasket, x-ring seal design. This adds up to a total of six seals, eliminating potential leak paths.

EZ Fit Flexible Connectors

The EZ FIT union style coupling system is specifically designed to make connections in confined spaces simple and tight. The entire flexible connector assembly can be quickly and easily disconnected and pulled out of the inline system without breaking pipe. This feature makes installation fast and regular maintenance simple to carry out. Each EZ FIT union style coupling comes complete with couplers and gaskets..

Certifications

- UL 2039 listed for above and below ground installation; for use with gasoline, gas alcohol blends (up to E85), diesel and biodiesel.





S. Bravo Systems, Inc.
2929 Vail Avenue
Commerce, CA 90040
1-800-AT-BRAVO
www.sbravo.com

Wednesday - August 25 - 2010

R3 10.21.13

RE: Bravo Fiberglass Sumps and Alternative fuels

This letter is to certify the compatibility of Bravo (S. Bravo Systems, Inc.) Single and Double Wall Fiberglass Containment Sumps with Alternative Fuels such as Biodiesel and Ethanol blended fuels. It also addresses compatibility with DEF Diesel Exhaust Fluid.

Bravo Fiberglass products are engineered with the same UL Listed materials used in the manufacture and certification of Fiberglass Tanks, matching the UL Standard 1316. Since our Fiberglass containment sumps are Built like a Tank, they can withstand continuous fuel exposure to Biodiesel, Ethanol and Alcohol blends without failure.

All DoubleWall Containment Sumps are engineered to be fully compliant with the California State Water Resource Control Board Assembly Bill AB-2481 for DoubleWall Sumps and Continuous Monitoring Systems.

The following Single and Double Wall Containment Sumps manufactured by Bravo Systems in Commerce, California are compatible with Biodiesel and Ethanol fuel blends up to B100 and E100, respectively.

- | | |
|---|--------------------------|
| > B3XX Series Spill Buckets | > B1XXX Series UDC Sumps |
| > B4XX Series Tank Sumps & Covers | > B7XXX Series UDC Sumps |
| > B5XX Series Planter Transition Sumps | > B8XXX Series UDC Sumps |
| > B6XX Series Walkover Transition Sumps | > B9XXX Series UDC Sumps |
| > B7XX Series H-20 Rated Transition Sumps | |
| > B8XX Series Transition Sumps | |

Bravo Systems also certifies that these products are compatible with and approved for use in secondary containing DEF Diesel Exhaust Fluid.

Each respective Series may be UL Listed in addition to being manufactured of UL recognized materials approved for use in the manufacture of Fiberglass UST tanks. Any other relevant documentation will be located in the documents area of each product's respective webpage.

Please feel free to contact us with any questions you may have at 800-AT-BRAVO.

Additionally, you may find further information at www.sbravo.com.

Sincerely,

Jonathan E. Smith
Director of Brand Management
S. Bravo Systems, Inc.





FIBERGLASS-COMPOSITE PIPE GROUP

Group Headquarters
9720 Cypresswood Drive, Suite 325
Houston, Texas 77070
Telephone: 832.912.8282
Fax: 832.912.9393

August 30, 2011

Subject: Bio-Fuel Compatibility

To Whom It May Concern:

Ameron Dualoy® 3000/L and 3000/LCX fiberglass piping systems (pipe, fittings and adhesive) are compatible with all concentrations of ethanol and ethanol blended fuels, from 0% to 100% ethanol content in gasoline.

The Dualoy product lines are also compatible with all concentrations of methanol blended fuels and all concentrations of bio-diesel.

Ameron Dualoy products are the only fully Listed systems for all applications, fuels and product types by Underwriters Laboratories Standard 971-2004.

Dualoy products were the first Listed by UL for full alcohol compatibility in 1988. Prior to that date, UL did not offer a Listing for alcohol blended fuels, although legacy Dualoy products prior to the Listing were compatible with ethanol and all concentrations of ethanol blended fuels.

For questions or other information needs, please contact Joie L. Folkers – Vice President Sales & Marketing at the above address or phone number or at jfolkers@ameron.com.

Respectfully submitted,

Joie L. Folkers
Vice President Sales & Marketing
Ameron International
Fiberglass-Composite Pipe Division-USA

JLF/vo



Home → Products → Pipe Thread Sealants → Gasolila® E-Seal Thread Sealant



Gasolila® E-Seal Thread Sealant

Non-hardening, non-toxic, opaque, dark green paste designed specifically for ethanol blended gasoline including E10 and E85 (for 100% ethanol or 100% methanol applications - use Gasolila 100).

Provides a positive seal on pipe threads, joints, fittings, hoses, nozzles, pump assemblies, oil burners, hydraulics, bolts, compressors, engines, motors, fuel lines and couplings.

For use on brass, copper, stainless steel, aluminum, black pipe, tin and galvanized pipe.

Excellent resistance to gasoline, ethanol blended gasoline such as E10 and E85, petroleum solvents, kerosene diesel oil, BioDiesel propane, jet fuels, butane, LPG, cutting oils, ammonia, aliphatic solvents, acids, steam and potable water.

NOT for use on oxygen.

Temperature Range: -100°F to 600°F (-74°C to 318°C).

Pressure Range: Up to 10,000 psi when sealing liquids and up to 3,000 psi with gases.

One year shelf life.

Distributors

GASOILA®
CHEMICALS



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Fast
Anaer
Seal



Gasol
Thre
PTFI



Gasol
Thre

Additional Info

Data Sheets

FPC Stock Code	Container Size	Units per Case
GE04	1/4 pt. Brush	24
GE08	1/2 pt. Brush	24
GE16	1 pt. Brush	12