



Franklin Fueling Systems

Franklin Fueling Systems certifies that Fuel Ethanol, also known commercially as E85, containing 51 % to 83 % ethanol by volume is compatible with APT TMA 4236 0/0 0C S and TMA 4836 0/0 0C S and APT LMM-3617. Franklin Fueling Systems has based this approval on the ASTM D5798 standard within the UL 2447 listing.

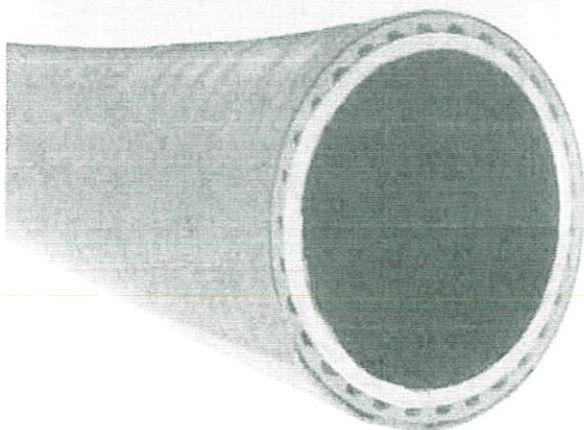
Per ASTM D5798 within the scope section 1.3 This specification formerly covered Fuel Ethanol (Ed70-Ed85) for Automotive Spark-Ignition Engines, also known commercially as E85. The nomenclature "fuel ethanol" has been changed to "ethanol fuel blends" to distinguish this product from denatured fuel ethanol Specification D4806. To facilitate blending of ethanol fuel blends that meet seasonal vapor pressure requirements, a new lower minimum ethanol content has been established.

The APT containments listed above APT TMA 4236 0/0 0C S, TMA 4836 0/0 0C S and APT LMM-3617, are all listed under Franklin Fueling Systems UL2447 listing which incorporates the ASTM D5798 in the general information section for Fuel Rating - Automotive Fuels. For more information on ASTM D5798 follow the link below:

<https://www.astm.org/Standards/D5798.htm>

Sincerely,

Loren Swalheim
Director, Global Technical Service
Franklin Fueling Systems



XP FLEXIBLE PIPEWORK

APT™ brand XP pipework provides a highly flexible pipework solution that makes installation simple and easy in any weather condition or site configuration. XP pipework can be used in both pressure and suction applications, and is ideal for underground service station fuel delivery systems. The XP pipework system features controlled flexibility, even in low temperatures, permitting fast, easy installation.

Highlights

- Available in 1", 1½", 1¾" and 2" diameters in a variety of coil lengths.
- The D-Series piping is a single wall, direct bury piping.
- The SC-Series piping provides additional environmental security as a secondary contained direct bury pipe.
- XP pipe features a 3 ft. bend radius for all pipe diameters making it one of the most flexible, yet durable fuel pipes available.
- No possibility of piping layer delamination due to the layered piping construction of high-grade material.
- With long coils (1000+ ft.) and simple fittings, XP pipework can be installed quickly without specialized tools in any weather.

Specifications

- Primary layer construction of Nylon 12 - the fuel line material contains no polyethylene.
- Do not store piping in direct sunlight.

Approvals/Certifications

- UL971 listed to the January 2014 standards.
- Biofuel compatible (E85 and Biodiesel).

Ordering Information

Model	Description	Ft.	Res.	Weight	
				Lbs.	Kg.
XP-100-SC	1" secondary contained	250	Master	301	136
		500	Master	408	185
		2500	S. Master	1299	589
XP-100-D	1" single wall	250	Master	258	117
		500	Master	320	145
		100	Master	250	113
		250	Master	333	151
XP-150-SC	1½" secondary contained	500	Master	470	213
		1,000	S. Master	789	358
		1,500	S. Master	1061	481
		100	Master	225	102
		250	Master	270	122
XP-150-D	1½" single wall	500	Master	570	259
		1,000	S. Master	536	243
		1,500	S. Master	686	311
		100	Master	300	136
		250	Master	405	184
XP-175-SC	1¾" secondary contained	500	Master	580	263
		1,000	S. Master	1076	488
XP-200-SC	2" secondary contained	250	Master	552	250
		500	S. Master	914	415
XP-200-D	2" single wall	250	Master	427	194
		500	S. Master	664	301

UL 2447 LISTED PRODUCTS

The UL 2447 requirement evaluates the safety of our containment products intended for below or at grade use, which house, transfer or otherwise come in contact with fuel. For the complete list of our containment sumps, fittings, spill containers, and accessories that are UL 2447 certified, see descriptions below.

Tank, Dispenser, and Transition Sumps

Part Number	Description	Part Number	Description
TSD-4542-IPB	TSD-4542 W/ SPECIAL IP	LMT-1410	LM TOP ASSEMBLY 14" X 10.25
TSD-4736-IP	SRS/TNK SUMP-DEEP-36" MH W/ IP	LMT-1913-T	LM TOP ASSEMBLY-19"X12" TOKHEIM
TSD-4736-IPB	TSD-4736 W/ SPECIAL IP	LMT-2010	LM TOP ASSEMBLY 20.5" X 10.375
TSD-W-4736	TNK SUMP-DEP BURY 36" ACCESS CV	LMT-2018	LM TOP ASSEMBLY 20.8" X 18.3
TSM-4542-IPB	TSM-4542 W/ SPECIAL IP	LMT-2313-T	TOP FRAME ADPTR GII 23 X 12
TSM-4736	SRS- TNK SMP-MED.BURY 36" MNHLE	LMT-2407	TOP FRAME ADPTR GII 23.75X7.5
TSM-4736-IPB	TSM-4736 W/ SPECIAL IP	LMT-2715	LM DISPENSER TOP ASSEMBLY 27 X 15
TSM-W-4736	TNK SUMP-MED BURY 36" ACCESS CV	LMT-2811	TOP FRAME ADPTR GII 28.5X11.0
TSS-4542	TNK SUMP-SHALLOW BURIAL 42" MH	LMT-2915	LM TOP ASSEMBLY 29.75"X15.75
TSS-4542-IPB	TSS-4542 W/ SPECIAL IP	LMT-3610	LM TOP ASSEMBLY 36" X 1-.25"
DHW-3617	DISPENSER SUMP, 36X17 ASSEMBLY	LMT-2916-DEF	LM TOP DEF ASSEMBLY 29.0" X 16.25
LMD-1410	LMD DISPENSER SUMP 13.5 X 9.75	LMT-3617-36	TOP FRAME ASSEMBLY 36X17.25 36" SUMP
LMD-1913-T	LMD DISPENSER SUMP 19 X 12 TOKHEIM	LMT-3617-DEF	LM TOP DEF ASSEMBLY 36.0" X 17.25
LMD-2010	LMD DISPENSER SUMP 20.5 X 10	LMT-3914	TOP FRAME ADPTR GII 36.75X14.0
LMD-2018	LMD DISPENSER SUMP 20.8 X 18.3	LMT-3914-36-W	TOP FRAME ASSEMBLY 36X17.25 36" SUMP
LMD-2313-T	LMD DISPENSER SUMP ASSEMBLY 23X12	LMT-4018	LM TOP ASSEMBLY 40" X 18
LMD-2407	LMD DISPENSER SUMP ASSEMBLY 23.75X7.5	LMT-4111	LM TOP ASSEMBLY 41.5" X 11
LMD-2715	LMD DISPENSER SUMP-27 X 15	LMT-4115	LM TOP ASSEMBLY 41" X 15
LMD-2811	LMD DISPENSER SUMP ASSEMBLY 28.5 X 11	LMD-2313-T-S	LMD DISPENSER SUMP 23X12 FRP
LMD-2915	LMD DISPENSER SUMP 29.75 X 15.75	LMD-2407-S	LMD DISPENSER SUMP 23.75x7.5 FRP
LMD-3610	LMD DISPENSER SUMP 36 X 10.25	LMD-2715-S	LMD DISPENSER SUMP 27X15 FRP
LMD-3617	LMD DISPENSER SUMP 36X17.25	LMD-2811-S	LMD DISPENSER SUMP 28X11.5 FRP
LMD-3914	LMD DISPENSER SUMP ASSEMBLY 38.75 X 14	LMD-2915-S	LMD DISPENSER SUMP 29.75X15.75FRP
LMD-3914-36-W	LMD DISPENSER SUMP ASSEMBLY 38.75x14,W	LMD-3617-S	LMD DISPENSER SUMP 36.0X17.25 FRP
LMD-4018	LMD DISPENSER SUMP 39.75 X 17.75	LMD-4113	LMD DISPENSER SUMP ASSEMBLY 41.5X13.2
LMD-4111	LMD DISPENSER SUMP 41.5 X 11	LMM-1410-D	LMM DISPENSER SUMP 13.5 X 9.75 FRP
LMD-4115	LMD DISPENSER SUMP 41.5 X 15.75	LMM-1410-S	LMM DISPENSER SUMP 13.5 X 9.75 FRP
LMM-1410	LMM DISPENSER SUMP 13.5 X 9.75	LMM-1913-T-D	LMM DISPENSER SUMP 19X13 FRP
LMM-1913-T	LMM DISPENSER SUMP 19 X 12 TOKHEIM	LMM-1913-T-S	LMM DISPENSER SUMP 19X13 FRP
LMM-2010	LMM DISPENSER SUMP 20.5 X 10	LMM-2010-D	LMM DISPENSER SUMP 20X10.5 FRP
LMM-2018	LMM DISPENSER SUMP 20.8 X 18.3	LMM-2010-S	LMM DISPENSER SUMP 20X10.5 FRP
LMM-2313-T	LMM DISPENSER SUMP ASSEMBLY 23 X 12	LMM-2018-D	LMM DISPENSER SUMP 20.8X18.3 FRP
LMM-2407	LMM DISPENSER SUMP ASSEMBLY 23.75X7.5	LMM-2018-S	LMM DISPENSER SUMP 20.8X18.3 FRP
LMM-2410-T-M	LMM DISPENSER SUMP ASSEMBLY 24 X 10	LMM-2313-T-D	LMM DISPENSER SUMP 23X12 FRP
LMM-2715	LMM DISPENSER SUMP-27 X 15	LMM-2313-T-S	LMM DISPENSER SUMP 23X12 FRP
LMM-2811	LMM DISPENSER SUMP ASSEMBLY 28.5 X 11	LMM-2407-D	LMM DISPENSER SUMP 23.75x7.5 FRP
LMM-2915	LMM DISPENSER SUMP 29.75 X 15.75	LMM-2407-S	LMM DISPENSER SUMP 23.75x7.5 FRP
LMM-2916-DEF	DEF-LMM DISPENSER SUMP 29.0X16.25	LMM-2715-D	LMM DISPENSER SUMP 27X15 FRP
LMM-3610	LMM DISPENSER SUMP 36 X 10.25	LMM-2715-S	LMM DISPENSER SUMP 27X15 FRP
LMM-3617	LMM DISPENSER SUMP 36.0X17.25	LMM-2811-D	LMM DISPENSER SUMP 28X11.5 FRP
LMM-3617-36-CGS	LMM DISPENSER SUMP	LMM-2811-S	LMM DISPENSER SUMP 28X11.5 FRP
LMM-3617-DEF	DEF-LMM DISPENSER SUMP 36.0X17.25	LMM-2915-D	LMM DISPENSER SUMP 29.75X15.75FRP
LMM-3914	LMM DISPENSER SUMP ASSEMBLY 38.75 X 14	LMM-2915-S	LMM DISPENSER SUMP 29.75X15.75FRP
LMM-3914-36-W	LMM DISPENSER SUMP ASSEMBLY 38.75x14,W		
LMM-4018	LMM DISPENSER SUMP 39.75 X 17.75		
LMM-4111	LMM DISPENSER SUMP 41.5 X 11		
LMM-4115	LMM DISPENSER SUMP 41.5 X 15.75		

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 compatibility:

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