AdvantaFlex™ APAF

SEALABLE & WELDABLE TPE TUBING

Pharma & Biopharmaceutical Applications

PRODUCT DATASHEET

PHARMASEP

Always by your side



AdvantaFlex™ APAF is a translucent Thermoplastic Elastomer (TPE) single-use tubing specifically designed for fluid transfer in critical pharmaceutical and biopharmaceutical applications, where reliability, safety, and sustainability are top priorities. With its sealable and weldable properties, AdvantaFlex tubing is the material of choice for various configurations, including overmolding applications, ensuring optimal fluid management integrity. Even after sterilization, AdvantaFlex maintains its physical properties and translucency while resisting kinking, making it an ideal option for quality and performance.

AdvantaPURE™

KEY FEATURES & BENEFITS

- High-quality aseptic sealing disconnection
- High strength, quality aseptic welded connections
- Low absorption and good chemical resistance
- Translucent for fluid flow visibility
- Free of silicone oils
- Wide range of standard sizes from 0.125" (3.175 mm) through 1" (25.4 mm) I.D.
- Available as leak-proof overmolded connections
- Custom lengths, sizes, and packaging available
- Security of supply with redundant manufacturing
- Manufactured with a focus on sustainability
- Comprehensive validation package to expedite qualification and validation

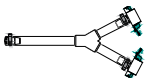
TYPICAL APPLICATIONS



Aseptic welding connections



Aseptic sealing disconnection



Single-use fluid transfer sets



Biopharmaceutical production, sampling and delivery systems



Cell media, harvesting, and fermentation



Buffer and media preparation



Ideal for use in assembles and bag manifolds



Filtration

TYPICAL PHYSICAL PROPERTIES

	ASTM Method	Value
Durometer, Shore A	D2240	65
Specific Gravity	D792	0.89
Ultimate Tensile Strength, psi (MPa)	D412	1000 (6.89)
Ultimate Elongation, %	D412	550
Tensile Modulus @100%, psi (MPa)	D412	410 (2.83)
Tensile Modulus @300%, psi (MPa)	D412	640 (4.41)
Tear Strength, Die B, ppi (kN/M)	D624	240 (42.0)
Compression Set, %	D395B	25

CHEMICAL COMPATIBILITY

Acids, Dilute / Weak	Acceptable
Acids, Strong / Concentrated	Acceptable
Bases, Dilute / Weak	Acceptable
Bases, Strong / Concentrated	Acceptable
Salts	Acceptable
High Purity Water	Acceptable
Oil/Water Emulsion	Test before use
Alcohol	Not Recommended*
Organic Solvent	Not Recommended

** Brief or intermittent contact is acceptable*

STERILITY

Available with validated sterility assurance of 10^{-6} via gamma irradiation per ISO 11137 method VDmax 25. A full sterility validation guide is available upon request.

STERILIZATION METHODS

Autoclave	One-time cycle at 121°C, 30 min
Gamma Irradiation	Up to 50 kGy
X-Ray	Up to 50 kGy

COMPLIANT OR TESTED TO

- USP <665> Extractables/Leachables
- USP <87> Cytotoxicity MEM Elution
- USP <88> Class VI
- USP <85> Bacterial Endotoxin
- European Pharmacopeia 3.2.9
- ISO 10993-5 (Cytotoxicity, In Vitro)
- RoHS Compliant
- REACH Compliant
- ADCF Compliant

Review the Regulatory Overview chart

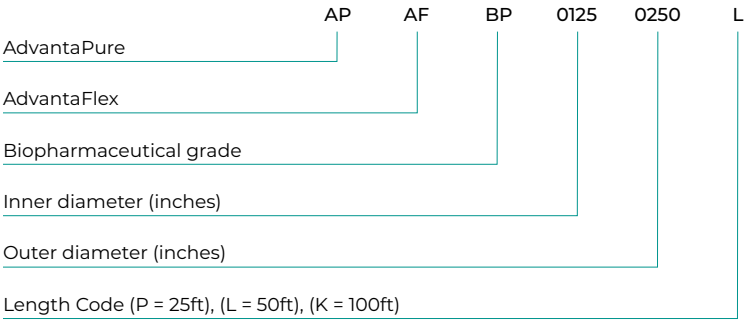
PRODUCT SPECIFICATIONS

Part Number	Catalog Number	I.D.		Wall		O.D.		Working Pressure 3:1 Safety Factor 70°F (21.1°C)		Bend Radius		Standard Available Lengths (Coiled)	
		in	mm	in	mm	in	mm	PSI	Bar	in	mm	ft	m
A7500077	APAF-BP-0125-0250	0.125	3.18	0.062	1.57	0.250	6.35	30	2.1	0.250	6.35	50, 100	15.24, 30.48
A7500155	APAF-BP-0188-0313	0.188	4.76	0.062	1.57	0.313	7.94	23	1.6	0.500	12.70	50, 100	15.24, 30.48
A7500207	APAF-BP-0188-0375	0.188	4.76	0.094	2.38	0.375	9.52	32	2.2	0.375	9.53	50, 100	15.24, 30.48
A7500285	APAF-BP-0250-0375	0.250	6.35	0.063	1.59	0.375	9.52	20	1.4	0.688	17.47	50, 100	15.24, 30.48
A7500311	APAF-BP-0250-0438	0.250	6.35	0.094	2.38	0.438	11.11	23	1.6	0.583	14.81	50, 100	15.24, 30.48
A7500337	APAF-BP-0250-0500	0.250	6.35	0.125	3.18	0.500	12.70	30	2.1	0.521	13.23	50	15.24
A7500402	APAF-BP-0313-0438	0.313	7.94	0.062	1.57	0.438	11.11	21	1.4	-	-	50, 100	15.24, 30.48
A7500415	APAF-BP-0313-0500	0.313	7.94	0.094	2.38	0.500	12.70	24	1.6	1.125	28.57	50	15.24
A7500480	APAF-BP-0375-0500	0.375	9.52	0.062	1.57	0.500	12.70	18	1.3	0.792	20.12	100	30.48
A7500493	APAF-BP-0375-0563	0.375	9.52	0.094	2.39	0.563	14.30	23	1.6	1.521	38.63	50	15.24
A7500506	APAF-BP-0375-0625	0.375	9.52	0.125	3.18	0.625	15.88	24	1.6	0.917	23.29	50, 100	15.24, 30.48
A7500584	APAF-BP-0500-0750	0.500	12.70	0.125	3.18	0.750	19.09	22	1.5	1.417	35.99	50, 100	15.24, 30.48
A7500662	APAF-BP-0625-0875	0.625	15.88	0.125	3.18	0.875	22.23	18	1.3	2.458	62.43	50	15.24
A7500753	APAF-BP-0750-1000	0.750	19.05	0.125	3.18	1.000	25.40	17	1.2	3.250	82.55	50, 100	15.24, 30.48
A7500766	APAF-BP-0750-1125	0.750	19.05	0.188	4.76	1.125	28.58	18	1.3	-	-	100	30.48
A7500857	APAF-BP-1000-1375	1.000	25.4	0.188	4.76	1.375	34.93	18	1.3	4.000	101.60	25	7.62

NOTE: *Not all standard part numbers are stocked items. For the up-to-date list of stocked sizes and lengths available, please contact your sales representative.*

CATALOG NUMBER KEY

Sold by standard length only. Add length suffix code to product number when ordering.
Example: 50 ft. of 0.125 in. I.D. x 0.250 in. O.D. tubing is product number APAF-BP-0125-0250L.

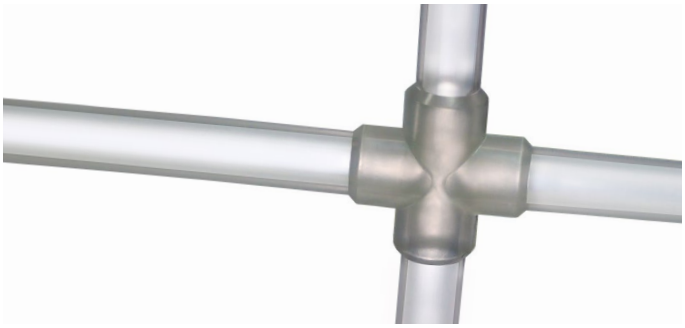




Non-listed sizes and custom lengths are available by special order.
Working pressures are calculated from burst testing using a 3:1 safety factor. Application testing is recommended.
Coils and spools are supplied double-bagged in heat-sealed polybags and bulk packed. Contact your AdvantaPure sales representative for other packaging options.

NOTE: *The data listed throughout this datasheet is meant only as a guide to aid in the design and is believed to be reliable; however, nothing stated shall constitute a guarantee or warranty for any application. Product field testing should be performed to find the actual values for a specific application.*

ADVANTAFLEX APAF INTEGRATION OPTIONS



Overmolding - Connections and Assemblies

AdvantaFlex sizes can be integrated into our assemblies and manifolds. Choose from standard available wyes, tees, sanitary ends, crosses, and reducers, or opt for our custom overmolding design services to create custom pieces for your unique application.



Molded Tubing Ends

Ideal for aseptic transfer and processing, overmolded with multi-port sanitary clamp and ends to form a smooth fluid path.



Tubing Kits

Built-to-order in an ISO Class 7 cleanroom, assembled with various components for convenience and efficiency.



Sterile Bottle Assemblies

Provide a ready-to-use, cost-effective solution for aseptic sampling, cell growth, and filling applications. The robust molded BioClosure™ is designed for storage and containment.

AdvantaPure™

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The AdvantaPure line of fluid transfer systems for the biopharma and pharmaceutical market are a line of the NewAge Industries family of products and services.

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