



A new formulation of TPE (thermoplastic elastomer) tubing has been developed for fluid transfer in the biopharmaceutical industry: AdvantaFlex.

AdvantaFlex addresses the need for a flexible, translucent, sterilizable, moldable, heat sealable, and weldable biopharmaceutical tubing for fluid processing. AdvantaFlex maintains its physical properties following sterilization processes, resists kinking, remains translucent for visible product flow, and does not become gummy. Additionally, the unique properties of AdvantaFlex help it outperform similar tubing in peristaltic pumps.



TPE  
www.advantapure.com

## KEY FEATURES

- Excellent life in peristaltic pumps
- Sterile weldable and heat sealable
- Now available as leak-proof molded connections *and* tubing
- Made from FDA-approved ingredients
- Excellent low absorption and adsorption characteristics as compared to silicone
- Certified free of silicone oils and animal-derived ingredients
- Sterilizable by autoclave or gamma radiation—available with **validated sterility assurance** of 10<sup>-6</sup> log reduction per ISO 11137 method VDmax
- Meets various ISO and USP standards, including Class VI
- Meets European Pharmacopoeia 3.2.2.1 standards
- Low permeability as compared to silicone
- Smooth interior for excellent flow and performance
- Translucent for fluid flow visibility
- Excellent tubing component for single use systems
- Sizes from 1/8" (.125) through 1" (1.000) I.D.
- Custom sizes, lengths, and packaging available
- Sealed in polybags at manufacture for cleanliness
- Documented quality control; lot traceable with identification on polybags
- Single resin validation — no need to graft to other tubing materials like silicone for media filling and sampling that involves peristaltic pumps; helps eliminate operator errors
- Chemical Characterization of Materials per ISO — “Extractables” test portfolio available upon request



MOLDED ASSEMBLIES & CONNECTIONS NOW AVAILABLE!

There is a <sup>better</sup> alternative



## SPECIFICATIONS

Product Number	Notes	I.D.		Wall		O.D.		Working Pressure at 70°F (21.1°C)		Standard Available Length (ft.)
		(in.)	(mm.)	(in.)	(mm.)	(in.)	(mm.)	(PSI)	(Bar)	
APAF-BP-0125-0250	†‡	.125	3.18	.063	1.59	.250	6.35	30	2.1	50, 100
APAF-BP-0188-0313	‡	.188	4.76	.063	1.59	.313	7.94	23	1.6	50, 100
APAF-BP-0188-0375	†	.188	4.76	.094	2.38	.375	9.52	32	2.2	50, 100
APAF-BP-0250-0375	‡	.250	6.35	.063	1.59	.375	9.52	20	1.4	50, 100
APAF-BP-0250-0438	†‡	.250	6.35	.094	2.38	.438	11.11	23	1.6	50, 100
APAF-BP-0250-0500	‡	.250	6.35	.125	3.18	.500	12.70	30	2.1	50, 100
APAF-BP-0313-0438	†‡	.313	7.94	.063	1.59	.438	11.11	21	1.4	50, 100
APAF-BP-0313-0500	‡	.313	7.94	.094	2.38	.500	12.70	24	1.6	50, 100
APAF-BP-0375-0500	‡	.375	9.52	.063	1.59	.500	12.70	18	1.3	50, 100
APAF-BP-0375-0625	†‡	.375	9.52	.125	3.18	.625	15.88	24	1.6	50, 100
APAF-BP-0500-0750	†‡	.500	12.70	.125	3.18	.750	19.05	22	1.5	50, 100
APAF-BP-0625-0875	†‡	.625	15.88	.125	3.18	.875	22.23	18	1.3	50, 100
APAF-BP-0750-1000	†‡	.750	19.05	.125	3.18	1.000	25.40	17	1.2	50, 100
APAF-BP-0750-1125	†‡	.750	19.05	.188	4.76	1.125	28.58	18	1.3	50, 100
APAF-BP-1000-1375	‡	1.000	25.40	.188	4.76	1.375	34.93	18	1.3	25

Sold by standard coil length only. Add length suffix code to product number when ordering—see the Coil Length Legend at right for length suffix codes. Example: 50 ft. of .125 in. I.D. x .250 in. O.D. tubing is product number APAF-BP-0125-0250L. Coils are supplied in heat-sealed polybags and bulk packed. Contact your AdvantaPure Sales Representative for other packaging options.

### Coil Length Legend:

P = 25 feet  
L = 50 feet  
K = 100 feet

### Notes Legend:

† Available in other lengths on spools—call for details.  
‡ Certain lengths available double bagged—call for details.

TUBE

## APPLICATIONS

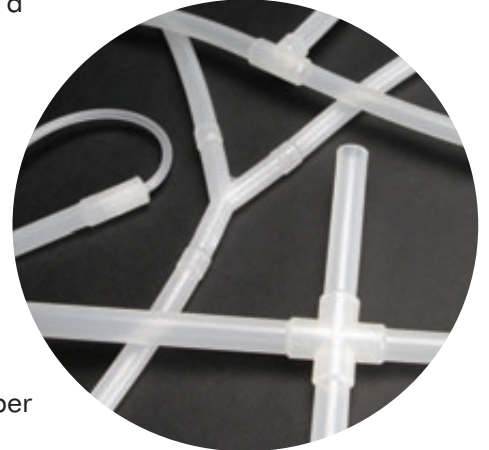
- Sterile filling
- Vaccine production
- Pharmaceutical sampling and delivery systems
- Peristaltic pump transfer
- Single-use systems
- Bioreactor processes
- Cell media, harvesting, and fermentation
- Pharmaceutical production and processing
- High purity water transfer
- Filtration



■ Because of its ability to be sealed and welded, AdvantaFlex is ideal for filling and sampling applications.

## MOLDED ASSEMBLIES & CONNECTIONS

- Build a complete single use system from AdvantaFlex
- Eliminates the need to splice silicone tubing sections into a process line
- Helps reduce the number of barbed fittings and cable ties needed *and* their potential for contamination, leaks, and a wasted batch of product
- Molded connections provide a smooth inner surface for even, unrestricted flow
- Choose from T's, Y's, crosses, reducers, mini and standard Tri-Clamps®, and BioClosure® container closure systems
- Available with validated sterility assurance of  $10^{-6}$  log reduction per ISO 11137 method V Dmax



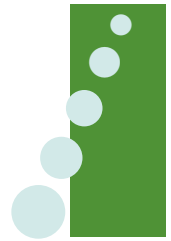
- Container closure inserts such as GL45's can be molded from AdvantaFlex.

- Excellent weldability and sealability allows leak-free, sterile connections for sampling and storage applications. AdvantaFlex is compatible with all portable welding and heat-sealing equipment.



- AdvantaFlex biopharmaceutical tubing offers excellent life in peristaltic pumps.

TPE



## PHYSICAL PROPERTIES

Specific Gravity	.89
Hardness, Shore A $\pm$ 5	65
Ultimate Tensile Strength, PSI	2167
Ultimate Elongation, %	948
Tensile Modulus @ 100%, PSI	364
Tear Strength, Die B, PPI	350
Compression Set, Method B, 22 hours @ 23°C at 25% deflection, %	9.9
Max. Operating Temperature, °F	275
Brittle Temperature, °F	-88

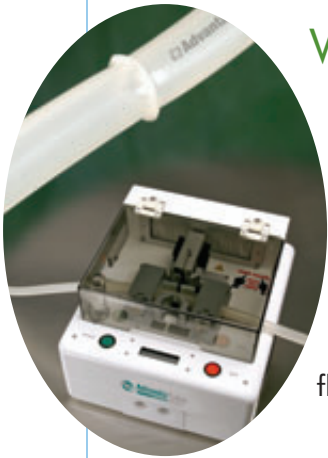
Discover how much better the *right* tubing — AdvantaFlex — will work in your pharmaceutical, biotech, medical, or other critical processing application.



## WELDING & SEALING ADVANTAFLEX

- The AdvantaTube® Welder makes sterile tubing welds quickly and reliably. Developed for bio-pharmaceutical applications, it has been designed to optimally work in all AdvantaFlex tubing applications including wet, dry, or fluid filled tubing.

- Sealing AdvantaFlex tubing is fast and easy with the AdvantaTube® Sealer. It offers a compact design, simple operation, and portability — use the 10 foot cable to seal at the location that's convenient for you.



TFE

Purity in Fluid Flow Systems®



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**AdvantaPURE**  
NEWAGE INDUSTRIES



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**ESOP** Employee Owned  
for Your Benefit

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