



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

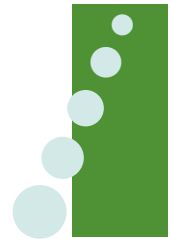
KEY FEATURES

- 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 10⁻⁶ 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 ^{better} 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

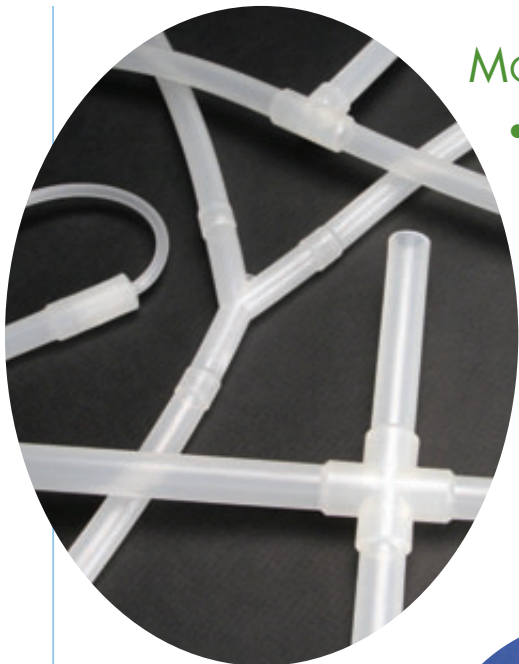
APPLICATIONS

- 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 pharmaceutical 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 closures
- Available with validated sterility assurance of 10^{-6} per ISO 11137 method Vmax



- Tubing can be molded onto aseptic connectors and filters (patent pending), reducing the risk of leaks associated with barbed fittings and eliminating cable ties and their risk of piercing bags or packaging (see note on last page).



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



- AdvantaFlex biopharmaceutical tubing offers excellent life in peristaltic pumps.

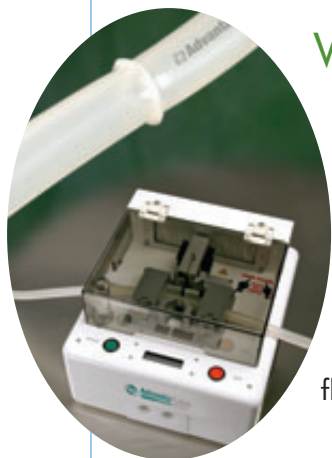
TPE



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 cord to seal at the location that's convenient for you.



Note: Molding onto aseptic connectors and filters may involve R&D and lengthy lead times; call for details.

TPU

Purity in Fluid Flow Systems®



Address: NewAge Industries AdvantaPure®
145 James Way
Southampton, PA 18966 U.S.A.



Toll Free Phone: **888-755-4370**
Phone: **215-526-2151**
Toll Free Fax: **888-258-4293**
Fax: **215-526-2167**
Web Site: **www.advantapure.com**
E-mail: **sales@advantapure.com**

DISTRIBUTED BY:



©2013 NewAge® Industries, Inc. Specifications are subject to change without notice. AdvantaPure products are produced by NewAge® Industries, Inc. AdvantaFlex®, AdvantaTube™, BioClosure®, Purity in Fluid Flow Systems®, NewAge Industries AdvantaPure®, NewAge®, and the "N" logo are trademarks of NewAge® Industries, Inc. Tri-Clamp® registered trademark of Alfa Laval Inc.

WARRANTY: NewAge Industries AdvantaPure products are warranted to be free from defects in material and workmanship. Any product found to carry such defects will be replaced without charge. This warranty is limited only to the replacement of NewAge Industries AdvantaPure products, item for item, which after examination by NewAge Industries AdvantaPure are deemed defective. NewAge Industries AdvantaPure specifically disclaims any other liability. The data supplied is provided as a helpful guideline and is believed to be reliable; however, nothing stated shall constitute a guarantee, recommendation, or warranty for any application.

NOTICE: NewAge Industries, Inc. has been a privately owned corporation since 1954. Neither the corporation nor its principals are affiliated, in any way, with any other group or entity either representing themselves as or being referred to by the term NewAge.