

AdvantaBio™ ECOFLEX

SEALABLE & WELDABLE TPE TUBING

Pharma & Biopharmaceutical Applications

PRODUCT DATASHEET



EcoFlex™, AdvantaPure™'s newest translucent Thermoplastic Elastomer (TPE) single-use tubing, is transforming the landscape for sustainable biopharmaceutical and pharmaceutical applications. EcoFlex utilizes the base formulation for AdvantaPure's flagship product, AdvantaFlex™ APAF, but incorporates a bio-based oil instead of a fossil-based one in the polymer. This increases the product's sustainability and offers all the advantages associated with AdvantaFlex — all without sacrificing performance.



KEY FEATURES & BENEFITS

- Uses bio-based feedstock via a mass balance approach to reduce raw-material carbon footprint
- 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.
- 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

* [Click here to learn more about reducing raw-material carbon footprint](#)

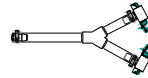
TYPICAL APPLICATIONS



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 assemblies 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

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

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

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	I.D.		Wall		O.D.		Working Pressure 3:1 Safety Factor 70°F (21.1°C)		Bend Radius		Standard Available Lengths	
	in	mm	in	mm	in	mm	PSI	Bar	in	mm	ft	m
A7530020	0.125	3.18	0.063	1.60	0.250	6.35	30	2.1	0.250	6.35	50, 100	15.24, 30.48
A7530033	0.188	4.78	0.063	1.60	0.313	7.95	23	1.6	0.500	12.70	50, 100	15.24, 30.48
A7530046	0.188	4.78	0.094	2.38	0.375	9.52	32	2.2	0.375	9.53	50, 100	15.24, 30.48
A7530059	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
A7530072	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
A7530085	0.250	6.35	0.125	3.18	0.500	12.70	30	2.1	0.521	13.23	50	15.24
A7530098	0.313	7.95	0.063	1.60	0.438	11.11	21	1.4	-	-	50, 100	15.24, 30.48
A7530111	0.313	7.95	0.094	2.38	0.500	12.70	24	1.6	1.125	28.57	50	15.24
A7530117	0.375	9.52	0.063	1.59	0.500	12.70	18	1.3	0.792	20.12	100	30.48
A7530124	0.375	9.52	0.094	2.38	0.563	14.30	23	1.6	1.521	38.63	50	15.24
A7530137	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
A7530163	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
A7530176	0.625	15.88	0.125	3.18	0.875	22.23	18	1.3	2.458	62.43	50	15.24
A7530189	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
A7530202	0.750	19.05	0.188	4.76	1.125	28.58	18	1.3	-	-	100	30.48
A7530241	1.000	25.40	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.

ADVANTABIO ECOFLEX INTEGRATION OPTIONS



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.



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To learn more about AdvantaPure
and what solutions we offer visit:

[AdvantaPure.com](https://www.AdvantaPure.com)

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