

AdvantaSil™ APLT

LOW TEMPERATURE SILICONE TUBING

Pharma & Biopharmaceutical Applications

PRODUCT DATASHEET



AdvantaSil™ Low Temperature (APLT) silicone tubing is a platinum-cured, single-use tubing engineered for fluid transfer in applications requiring reliable performance at extreme low temperatures. It maintains flexibility and structural integrity down to -86°C (-122.8°F to 347°F), resisting cracking and deformation under demanding conditions. Designed to meet the stringent requirements of pharmaceutical and biopharmaceutical cold-chain applications, AdvantaSil Low Temperature tubing is an ideal solution for bulk drug storage, frozen fluid transfer, and other low-temperature processes where consistent performance and reliability are critical.

KEY FEATURES & BENEFITS

- Remains flexible and durable at temperatures as low as -86°C (-122.8°F to 347°F)
- Allows for optimal freezer utilization since no clam shell is needed to protect the tubing
- Resists compression set and cracking at low temperatures
- All assembly and final packaging is performed in an ISO Class 7 cleanroom
- Manufactured in ISO Class 7 cleanroom
- Manufactured with a focus on [sustainability](#)

TYPICAL APPLICATIONS



Ultra-low temperature fluid transfer



Frozen drug substance handling



Cold-chain processing and distribution



Freeze and thaw operations



Pre-fill cold storage handling



Temperature sensitive biologics transfer



Advanced therapy processing (cell & gene therapy)



Vaccine storage

TYPICAL PHYSICAL PROPERTIES

	ASTM Method	Value
Durometer, Shore A	D2240	40-55
Specific Gravity	D792	1.23
Ultimate Tensile Strength, psi (MPa)	D412	10.3 MPa
Ultimate Elongation, %	D412	600
Tensile Modulus @100%, psi (MPa)	D412	1.1 MPa
Tear Strength, Die B, ppi (kN/M)	D624	390.7 kN/M

CHEMICAL COMPATIBILITY

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

COMPLIANT OR TESTED TO

- BPOG Extractables/Leachables
- USP <85> Bacterial Endotoxin
- USP <87> Cytotoxicity MEM Elution
- USP <88> Class VI
- Biocompatibility ISO 10993 (part 10, 11)
- RoHS Compliant
- ADCF Compliant

[Review the Regulatory Overview chart](#)

STERILITY

Available with validated sterility assurance of 10^{-6} via gamma irradiation per ISO 11137 method VDmax 25.

STERILIZATION METHODS

Autoclave	One-time cycle at 121°C, 30 min
Gamma Irradiation	Up to 45 kGy

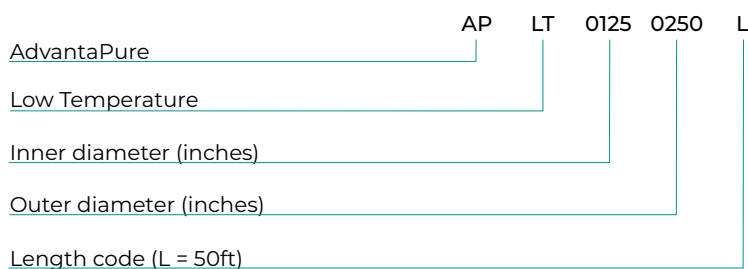
PRODUCT SPECIFICATIONS

Part Number	Catalog Number	I.D.		Wall		O.D.		Standard Available Length
		in	mm	in	mm	in	mm	
A7050210-50	APLT-0125-0250	0.125	3.18	0.063	1.59	0.250	6.35	50
A7050535-50	APLT-0250-0375	0.250	6.35	0.063	1.59	0.375	9.52	50
A7050561-50	APLT-0250-0500	0.250	6.35	0.125	3.18	0.500	12.70	50
A7050821-50	APLT-0375-0625	0.375	9.52	0.125	3.18	0.625	15.88	50
A7051055-50	APLT-0500-0750	0.500	12.70	0.125	3.18	0.750	19.05	50

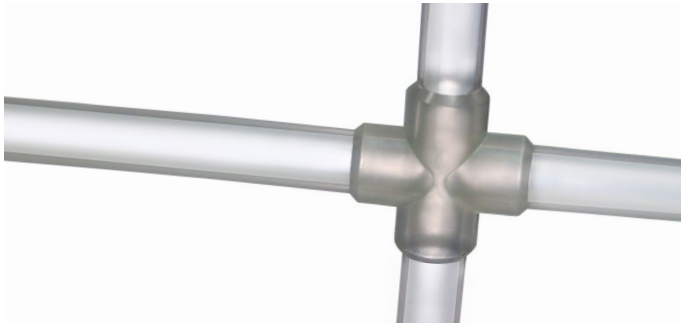
NOTE: Not all standard part numbers are stocked items. For the up-to-date list of stocked sizes and lengths available, please contact your sales representative.

CATALOG NUMBER KEY

Sold by standard coil length of 50 ft. Add length suffix code L to catalog number when ordering.
 Example: 50 ft. of .125 in. I.D. x .250 in O.D. tubing is product number APLT-0125-0250L.



Coils are supplied double bagged in heat-sealed polybags and bulk packed. Contact your AdvantaPure account representative for other packaging options.



Overmolding - Connections and Assemblies

AdvantaSil APLT 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.



Tubing Kits

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



Molded Tubing Ends

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



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)

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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