

HettaTube™ PI-300

High Performance Polyimide Tubing



SUMMARY

HettaTube™ PI-300 series Polyimide tubes are designed specifically for use in the medical electronics industry as an ultra-thin wall insulation tubing with a superior combination of temperature and electrical performance.

HettaTube™ PI-300 series tubes are thermoset and does not melt. It is rated for a continuous duty of 300°C with a minimal thermal endurance of 400°C.

HettaTube™ PI-300 series tubes are chemically inert and resistant to most solvents. It can be sterilized using most common sterilization methods including EtO, Gamma, and E-Beam processes.

HettaTube™ PI-300 series tubes are an optimum choice for applications in Medical, Aerospace, and Chemical manufacturing industries.

CONTACT

ESP - Insulated Products Division
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HT-PI300V1.02

PRODUCT HIGHLIGHTS

- Dark Amber Color
- Lightweight Seamless Tubing
- High Breakdown Voltage and Dielectric Constant
- Chemically Inert & Non-Melting
- Excellent Solvent Resistance
- Excellent Sterilization Tolerance (Radiation, EtO, E-Beam)

TECHNICAL SPECIFICATIONS

Material: Polyimide

Temperature Rating: -200°C to 300°C

Thermal Endurance > 400°C

Melting Temp: Does Not Melt (Decomposition Temp @ Approx. 504°C)

Flame Rating: UL 94 V-0

PERFORMANCE DATA

PROPERTY	NOMINAL
Density (@ Room Temp)	1.41 g/cc
Tensile Strength	20,000 PSI (NOM)
Elongation	20 % NOM
Thermal Conductivity	0.471 W/m*K
Coefficient of Thermal Expansion	4.0 X 10 ⁻⁵ /°C
Coefficient of Friction	0.5
Dielectric Strength	> 4000V / mil
Moisture Absorption	0.841 wt% (24 Hrs)
Radiation Resistance	3.0 x 10 ⁹ Gamma Dose rd

An ESP Performance Product

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Item Part Number	Inner Diameter		Wall Thickness		Overall Diameter	
	Inch	mm	Inch	mm	Inch	mm
PI300-075S	0.0295	0.75	0.0012	0.030	0.0319	0.81
PI300-080S	0.0315	0.80	0.0012	0.030	0.0339	0.86
PI300-085S	0.0335	0.85	0.0012	0.030	0.0359	0.91
PI300-090S	0.0354	0.90	0.0012	0.030	0.0378	0.96
PI300-095S	0.0374	0.95	0.0012	0.030	0.0398	1.01
PI300-100S	0.0394	1.00	0.0016	0.041	0.0426	1.08
PI300-110S	0.0433	1.10	0.0016	0.041	0.0465	1.18
PI300-120S	0.0472	1.20	0.0016	0.041	0.0504	1.28
PI300-130S	0.0512	1.30	0.0016	0.041	0.0544	1.38
PI300-140S	0.0551	1.40	0.0016	0.041	0.0583	1.48
PI300-150S	0.0591	1.50	0.0018	0.046	0.0627	1.59
PI300-160S	0.0630	1.60	0.0018	0.046	0.0666	1.69
PI300-170S	0.0670	1.70	0.0020	0.051	0.071	1.80
PI300-180S	0.0709	1.80	0.0020	0.051	0.0749	1.90
PI300-190S	0.0748	1.90	0.0020	0.051	0.0788	2.00
PI300-200S	0.0787	2.00	0.0020	0.051	0.0827	2.10
PI300-210S	0.0827	2.10	0.0020	0.051	0.0867	2.20
PI300-220S	0.0866	2.20	0.0024	0.061	0.0914	2.32
PI300-230S	0.0906	2.30	0.0024	0.061	0.0954	2.42
PI300-250S	0.0984	2.50	0.0024	0.061	0.1032	2.62
PI300-280S	0.1102	2.80	0.0024	0.061	0.115	2.92
PI300-300S	0.1181	3.00	0.0031	0.079	0.1243	3.16
PI300-310S	0.1220	3.10	0.0031	0.079	0.1282	3.26
PI300-330S	0.1299	3.30	0.0031	0.079	0.1361	3.46
PI300-350S	0.1378	3.50	0.0031	0.079	0.1440	3.66

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