

HT-105°C™ PVC TUBING

DESCRIPTION

HT-105°C™ is a tough, flexible polyvinylchloride (PVC) extruded tubing made with non-migratory plasticizer. HT-105C™ exhibits exceptional long-term resistance to deformation caused by cold flow, has a high degree of mechanical strength and excellent heat stability, oil resistance and fungus resistance, which makes it preferred for a wide variety of electrical applications.

APPLICATIONS

HT-105°C™ Tubing is used as part of the internal wiring of electrical devices and appliances, for insulating one or more un-insulated or partially insulated conductors, bus bars, component leads, terminal lugs or assemblies of electronic components.

SPECIFICATIONS

HT-105°C™ Tubing meets the requirements of ASTM-D922, Grade CFR and MIL-I-631D, Type F, Grade C, Class 1, Category 1; UL VW-1 Standard 224; Standard C22.2 No. 198-M 1986 and is recognized under the component program of Underwriters Laboratories, Inc. and Canadian Standards Association and is approved for continuous operating temperature of 105°C. Commercial grade material is RoHS compliant.

PACKAGING FOR COMMERCIAL GRADE TUBING

All sizes can be supplied in various lengths cut to customer specifications, subject to factory quotation. Tubing is packed on cardboard spools as follows:

TUBE SIZE	FEET PER SPOOL	TUBE SIZE	FEET PER SPOOL
#24 - #15	5,000	3/8"	625
#14 - #7	2,500	7/16"	500
#6	2,000	1/2"	400
#5	1,750	9/16"	375
#4	1,500	5/8"	300
#3	1,250	3/4"	250
#2 - 1/4"	1,000	7/8", 1"	200
#1, 5/16", 0	750	1 1/8"	150
		1 1/4", 1 3/8", 1 1/2"	100

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PERFORMANCE CHARACTERISTICS

PROPERTY	PERFORMANCE	TEST METHOD
Dielectric Strength, Short Time, Volts/Mil, C-96/23/0 C-96/23/96	800 @ .016 wall; 570 @ .030 wall 680 @ .016 wall; 485 @ .030 wall	ASTM D 149
Dielectric Constant / Dissipation Factor, 10 ³ Hz	3.0 / .06	ASTM D 150
Volume Resistivity, OHM-CM	> 10 ¹¹	ASTM D 876
Corona Resistance	Excellent	ASTM 1868
Cold Brittle Point	-12°C Max: Size # 8 & smaller -24°C Max Size # 7 & larger	ASTM D 876
Tensile Strength, PSI	2000 Min	ASTM D 876
Ultimate Elongation, % After 400 Hrs @ 130°C	300-400 < 35% loss	ASTM D 876
Abrasion Resistance	Good	MIL-T-5438
Oil Resistance, 4 Hrs in ASTM # 3 oil @ 105°C	Average Elongation +/- 10%	ASTM D 876
Flame Resistance	Self-Extinguishing, < 15 sec.	ASTM D 876
Corrosive Effect, 60 Days @ 70°C in Contact with Copper Wire	Pass, < 2% Change in Res.	ASTM D 876
Fungus Resistance, Observed Growth, 21 Day Incubation	None	ASTM D 876
Chemical Resistance to Acids & Alkalies	Good; Softened by Ketones and Esters	ASTM D 543
Radiation Resistance, Gamma Exposure, Rad	10 ⁷ - 10 ⁸	ASTM D 1672

Above are typical performance values and are not intended to be used as design data.

SIZES AVAILABLE AND VOLTAGE RATINGS

SIZE	Nominal ID In / mm	Nominal Wall, Inch	VOLTS AC	SIZE	Nominal ID In / mm	Nominal Wall, Inch	VOLTS AC
20	.034 / .86	.016 / .032	300 / 600	0	.330 / 8.38	.020 / .032	300 / 600
19	.038 / .97	.016 / .032	300 / 600	5/16	.323 / 8.20	.025 / .032	600
18	.042 / 1.07	.016 / .032	300 / 600	3/8	.387 / 9.83	.020 / .032	600
17	.047 / 1.19	.016 / .032	300 / 600	7/16	.450 / 11.43	.020 / .032	600
16	.053 / 1.35	.016 / .032	300 / 600	1/2	.512 / 13.00	.020 / .032	600
15	.059 / 1.50	.016 / .032	300 / 600	9/16	.575 / 14.59	.030	600
14	.066 / 1.68	.016 / .032	300 / 600	5/8	.640 / 16.26	.030	600
13	.076 / 1.93	.016 / .032	300 / 600	3/4	.768 / 19.51	.035	600
12	.085 / 2.16	.016 / .032	300 / 600	7/8	.893 / 22.68	.035	600
11	.095 / 2.41	.016 / .032	300 / 600	1	1.018 / 25.86	.035	600
10	.106 / 2.69	.016 / .032	300 / 600	1 1/16	1.080 / 27.43	.035	600
9	.118 / 3.00	.020 / .032	300 / 600	1 1/8	1.144 / 29.06	.035	600
8	.133 / 3.38	.020 / .032	300 / 600	1 1/4	1.270 / 32.26	.040	600
7	.148 / 3.76	.020 / .032	300 / 600	1 3/8	1.390 / 35.31	.040	600
5	.166 / 4.22	.020 / .032	300 / 600	1 1/2	1.525 / 38.74	.045	600
4	.208 / 5.28	.020 / .032	300 / 600	1 3/4	1.781 / 45.24	.055	600
3	.234 / 5.94	.020 / .032	300 / 600	2	2.035 / 51.69	.060	600
2	.263 / 6.68	.020 / .032	300 / 600	2 1/4	2.275 / 57.79	.065	600
1	.294 / 7.47	.020 / .032	300 / 600	2 1/2	2.525 / 64.14	.070	600