



**Alpha Wire Company**  
711 Lidgerwood Avenue  
Elizabeth, NJ 07207  
Tel: 908-925-8000  
Fax: 908-925-6923

**Product Specification: PVC-105**

**Date Issued: 06/20/01**

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**Product Description:** This specification covers flexible, high temperature, polyvinylchloride tubing. It shall be free from wrinkles, cracks, blisters, and bubbles, and shall be reasonably free from other small defects such as dents and scratches.

**Construction Requirements**

**Applicable Standards:**

MIL-I-631D

Type F, Form U, Subform Ua,  
Grade C, Class I, Category 1  
224

UL Standard

File #: E38155

CSA Standard

C22.2 No. 198

File #: LL52040

**Physical Properties:**

Operating temperature range

-20°C to 105°C

Dimensions

Shall conform to table I

Tensile strength

2800 psi, nominal

Ultimate elongation

300%

Specific gravity (Clear)

1.25

(Colors)

1.35

**Electrical Properties:**

Voltage Rating

300 Volts (For sizes 0 – 24)

600 Volts (For sizes 5/16 – 2 ½)

Dielectric Strength

800 volts/mil

Volume Resistivity

10<sup>13</sup> ohm/cm

**Chemical Properties:**

Corrosive Effect

Non-corrosive

Fungus Resistance

Does not support growth

Flammability

Self-extinguishing, does

not support combustion

Water Absorption

0.5% maximum

TABLE 1

<u>PART NUMBER</u>	<u>INSIDE DIAMETER</u>			<u>WALL THICKNESS</u>		
	<u>NOMINAL</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>NOMINAL</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>
PVC-105-24	0.022	0.020	0.027	0.012	0.010	0.014
PVC-105-22	0.027	0.025	0.032	0.012	0.010	0.014
PVC-105-20	0.034	0.032	0.039	0.016	0.013	0.019
PVC-105-19	0.038	0.036	0.044	0.016	0.013	0.019
PVC-105-18	0.042	0.040	0.049	0.016	0.013	0.019
PVC-105-17	0.047	0.045	0.054	0.016	0.013	0.019
PVC-105-16	0.053	0.051	0.061	0.016	0.013	0.019
PVC-105-15	0.059	0.057	0.067	0.016	0.013	0.019
PVC-105-14	0.066	0.064	0.072	0.016	0.013	0.019
PVC-105-13	0.076	0.072	0.080	0.016	0.013	0.019
PVC-105-12	0.085	0.081	0.089	0.016	0.013	0.019
PVC-105-11	0.095	0.091	0.101	0.016	0.013	0.019
PVC-105-10	0.106	0.102	0.112	0.016	0.013	0.019
PVC-105-9	0.118	0.114	0.124	0.020	0.017	0.023
PVC-105-8	0.133	0.129	0.141	0.020	0.017	0.023
PVC-105-7	0.148	0.144	0.158	0.020	0.017	0.023
PVC-105-6	0.166	0.162	0.178	0.020	0.017	0.023
PVC-105-5	0.186	0.182	0.198	0.020	0.017	0.023
PVC-105-4	0.208	0.204	0.224	0.020	0.017	0.023
PVC-105-3	0.234	0.229	0.249	0.020	0.017	0.023

TABLE 1 (CON'T)

<u>PART NUMBER</u>	<u>INSIDE DIAMETER</u>			<u>WALL THICKNESS</u>		
	<u>NOMINAL</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>NOMINAL</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>
PVC-105-2	0.263	0.258	0.278	0.020	0.017	0.023
PVC-105-1	0.294	0.289	0.311	0.020	0.017	0.023
PVC-105-0	0.330	0.325	0.347	0.020	0.017	0.023
PVC-105-5/16	-----	0.313	0.334	0.025	0.022	0.028
PVC-105-3/8	-----	0.375	0.399	0.025	0.022	0.028
PVC-105-7/16	-----	0.438	0.462	0.025	0.022	0.028
PVC-105-1/2A	-----	0.500	0.524	0.025	0.022	0.028
PVC-105-9/16	-----	0.562	0.592	0.030	0.025	0.035
PVC-105-5/8	-----	0.625	0.655	0.030	0.025	0.035
PVC-105-3/4	-----	0.750	0.786	0.035	0.030	0.040
PVC-105-7/8	-----	0.875	0.911	0.035	0.030	0.040
PVC-105-1	-----	1.000	1.036	0.035	0.030	0.040
PVC-105-1-1/8	-----	1.125	1.161	0.040	0.035	0.045
PVC-105-1-1/4	-----	1.250	1.290	0.040	0.035	0.045
PVC-105-1-1/2	-----	1.500	1.550	0.045	0.039	0.051
PVC-105-2	-----	2.000	2.070	0.060	0.050	0.070
PVC-105-2-1/2	-----	2.500	2.527	0.070	0.058	0.082