

# AEROSPACE MATERIAL SPECIFICATION

Tubing, Plastic, Extra Flexible, Convoluted, Polytetrafluoroethylene  
Close Convolution

FSC 9330

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The complete requirements for procuring the tubing described herein shall consist of this document and the issue in effect of MIL-T-81914(AS).

**REQUIREMENTS:**

Convolution type: Helical (see 3.3)

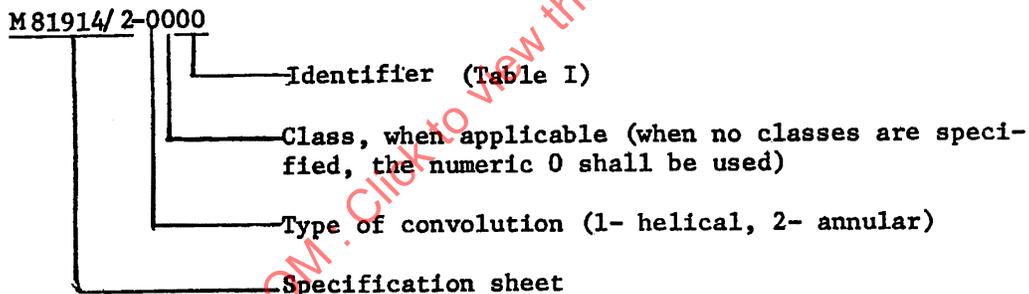
Construction details: Construction details, including available sizes, dimensions and tolerances are located in Table I. Lengths shall be as specified by the procuring activity.

Continuous operating temperature: -67°C (-88°F) to +260°C (500°F)

Color: Unless otherwise specified, the supplied color shall be black.

Physical properties: General physical requirement values, along with associated test conditions are located in Table II.

Military Part Number: Consists of the basic number of this specification sheet and dash numbers as shown below:



Close convolution polytetrafluoroethylene, thin wall, 0.500 inch is identified as: M81914/2-1006

TABLE I  
CONSTRUCTION DETAILS

Ident- ifier	Max. Inside Dia.	Min. Inside Dia.	Max. Outer Dia.	Wall Thickness Max.	Conv. Per Inch + 1	Weight (Lbs) Per 100 feet Max.	Min. Bend Radius
**01	.188	.181	.320	.023	10	2.2	.313
**02	.281	.273	.414	.026	9	3.8	.438
**03	.312	.306	.450	.02	9	4.8	.438
**04	.375	.364	.530	.029	9	5.6	.500
**05	.437	.427	.590	.029	9	6.5	.500
**06	.500	.485	.660	.029	9	6.9	.750
**07	.625	.608	.780	.029	9	9.2	.750
**08	.750	.730	.975	.035	8	13.8	.938
**09	.875	.860	1.100	.035	8	15.0	.938
**10	1.000	.975	1.260	.035	7	16.8	1.125
**11	1.125	1.105	1.390	.035	6	17.5	1.125
**12	1.250	1.210	1.539	.035	6	19.6	1.250
**13	1.500	1.450	1.810	.038	6	26.0	2.00

\*\* - The asterisks shall be replaced by Convolution Type and Class designation.

Note: Unless otherwise specified all dimensions are in inches.

TABLE II  
PHYSICAL PROPERTIES

PROPERTY	REQUIREMENT	TEST METHOD
Construction details	In accordance with Table I	4.6.1
Stress in psi @ 10% strain	150 to 450	4.6.2
Specific gravity, max.	2.20	4.6.3
Crush resistance, pounds horizontal, min.	10	4.6.4
Low temperature flexi- bility	No cracking	4.6.5; 36,000 cycles