SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS-T-81914/6

Issued JUN 1999

Tubing, Plastic, Flexible, Convoluted, Ethylene-Tetrafluoroethylene, Standard Convolution

FSC 9330

NOTICE

This document has been taken directly from U.S. Military Specification MIL-T-81914/6(AS) and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-T-81914/6(AS). Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this SAE technical document.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-7121 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER: (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS: http://www.sae.org

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)

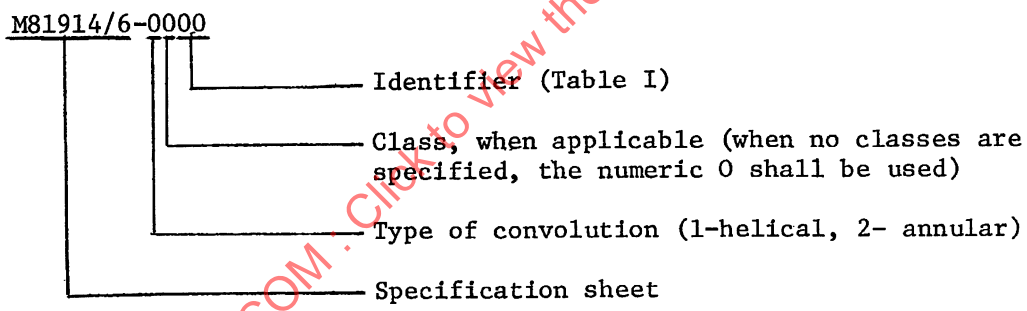
Construction details: Construction details, including available sizes, dimensions and tolerances, are located in Table I. Lengths shall be as specified by the procuring activity.

Continuous operating temperature: -67°C (-88°F) to 150°C (302°F)

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

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

Part number: Consists of the basic number of this specification sheet and a dash number as shown below:



Standard convolution, Ethylene-Tetrafluoroethylene, standard wall 0.500 inch is identified as M81914/6-1006

TABLE I
CONSTRUCTION DETAILS

Identifier	Max. Inside Dia.	Min. Inside Dia.	Max. Outer Dia.	Wall Thickness Max.	Convolutions Per Inch ± 1	Weight(Lbs) Per 100 Feet Max.	Min. Bend Radius
**01	.187	.181	.320	.018	8	1.2	.500
**02	.281	.273	.414	.018	8	1.4	.750
**03	.312	.306	.450	.018	8	1.5	.750
**04	.375	.364	.510	.018	8	1.8	.875
**05	.437	.427	.571	.018	8	2.5	.875
**06	.500	.485	.650	.023	7	3.2	1.250
**07	.625	.608	.770	.023	7	3.9	1.500
**08	.750	.730	.930	.023	6	4.9	1.750
**09	.875	.860	1.073	.023	5	5.6	2.00
**10	1.000	.975	1.226	.023	5	6.8	2.37
**11	1.125	1.105	1.390	.023	5	7.5	2.37
**12	1.250	1.210	1.539	.023	4	8.8	2.75
**13	1.500	1.437	1.832	.023	4	10.2	3.38
**14	1.750	1.688	2.082	.023	4	11.9	3.88
**15	2.000	1.937	2.332	.023	4	13.5	4.25
**16	2.250	2.188	2.582	.023	4	14.1	5.38
**17	2.500	2.437	2.832	.023	4	16.0	6.00
**18	3.000	2.937	3.332	.023	4	20.0	7.00
**19	4.000	3.937	4.332	.023	4	30.5	9.50
**20	5.000	4.870	5.375	.023	4	35.0	11.0

** - The asterisks shall be replaced with 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 750	4.6.2
Specific gravity, max.	1.70	4.6.3
Crush resistance, pounds Horizontal, min.	12	4.6.4
Low temperature flexibility	No cracking	4.6.5; 10,000 cycles