

MIL-R-6855/4  
16 February 1987

# MILITARY SPECIFICATION SHEET RUBBER, SYNTHETIC, TUBING

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirement for acquiring the tubings described herein shall  
consist of this document and the latest issue of MIL-R-6855.

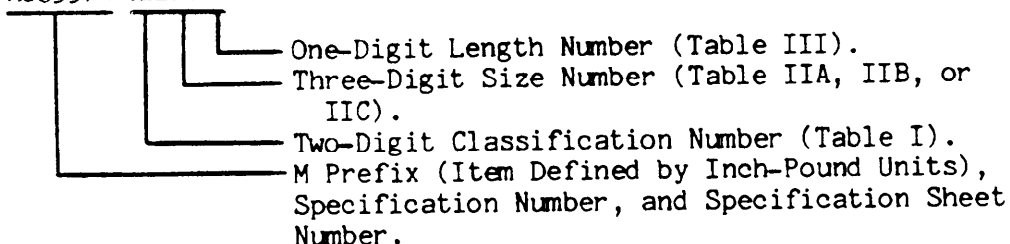
## REQUIREMENTS:

### Part Numbers:

Part numbers shall consist of the prefix M, specification number,  
specification sheet number, and a six-digit dash number assigned  
using Tables I, IIA, IIB, IIC, and III herein, as shown in the  
following example:

### EXAMPLE:

M6855/4-XXXXXX



### Dimensional Tolerances:

Tolerances for tubing inside diameter and wall thickness shall be in  
accordance with Tables IIA, IIB, and IIC herein, as applicable.  
Tolerance for tubing length shall be -0%, +3%.

### Surface Finish:

All synthetic rubber tubing surfaces shall be smooth and free from  
pin holes, flash, or any other imperfections which may impair  
serviceability.

### Physical Properties:

Physical properties of Classes 1, 2, and 3 synthetic rubber tubing  
shall conform to MIL-R-6855, Table IV. Classes 4 and 5, synthetic  
rubber tubing shall conform to MIL-R-6855, Table V.

### Quality Assurance:

Inspection and test of synthetic rubber tubing shall be in accordance  
with MIL-R-6855, Section 4, QUALITY ASSURANCE PROVISIONS.

FSC 4720, 5330, 9320

AMSC: N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is  
unlimited.

MIL-R-6955/4

TABLE I

TYPE, CLASS, GRADE	
Classification Number	Classification of Requirements
01	CLASS 1 GRADE 30
02	CLASS 1 GRADE 40
03	CLASS 1 GRADE 50
04	CLASS 1 GRADE 60
05	CLASS 1 GRADE 70
06	CLASS 1 GRADE 80
07	TYPE A CLASS 2 GRADE 30
08	TYPE A CLASS 2 GRADE 40
09	TYPE A CLASS 2 GRADE 50
10	TYPE A CLASS 2 GRADE 60
11	TYPE A CLASS 2 GRADE 70
12	TYPE A CLASS 2 GRADE 80
13	TYPE B CLASS 2 GRADE 30
14	TYPE B CLASS 2 GRADE 40
15	TYPE B CLASS 2 GRADE 50
16	TYPE B CLASS 2 GRADE 60
17	TYPE B CLASS 2 GRADE 70
18	TYPE B CLASS 2 GRADE 80
19	CLASS 3 GRADE 30
20	CLASS 3 GRADE 40
21	CLASS 3 GRADE 50
22	CLASS 3 GRADE 60
23	CLASS 3 GRADE 70
24	CLASS 3 GRADE 80
25	TYPE A CLASS 4 GRADE 30
26	TYPE A CLASS 4 GRADE 40
27	TYPE A CLASS 4 GRADE 50
28	TYPE A CLASS 4 GRADE 60
29	TYPE A CLASS 4 GRADE 70
30	TYPE A CLASS 4 GRADE 80
31	TYPE B CLASS 4 GRADE 30
32	TYPE B CLASS 4 GRADE 40
33	TYPE B CLASS 4 GRADE 50
34	TYPE B CLASS 4 GRADE 60
35	TYPE B CLASS 4 GRADE 70
36	TYPE B CLASS 4 GRADE 80
37	CLASS 5 GRADE 30
38	CLASS 5 GRADE 40
39	CLASS 5 GRADE 50
40	CLASS 5 GRADE 60
41	CLASS 5 GRADE 70
42	CLASS 5 GRADE 80

INCH

MM

0.031	0.79
0.039	0.99
0.047	1.19
0.055	1.40
0.063	1.60
0.078	1.98
0.079	2.01
0.094	2.39
0.102	2.59
0.109	2.77
0.110	2.79
0.125	3.18
0.133	3.38
0.141	3.58
0.156	3.96
0.172	4.37
0.179	4.55
0.188	4.78
0.203	5.16
0.219	5.56
0.234	5.94
0.250	6.35
0.281	7.14
0.297	7.54
0.312	7.92
0.328	8.33
0.359	9.12
0.375	9.53
0.391	9.93
0.422	10.72
0.438	11.13

INCH

MM

0.453	11.51
0.484	12.29
0.500	12.70
0.516	13.11
0.547	13.89
0.562	14.27
0.578	14.68
0.609	15.47
0.625	15.88
0.641	16.28
0.734	18.64
0.750	19.05
0.766	19.46
0.859	21.82
0.875	22.23
0.891	22.63
0.984	24.99
1.000	25.40
1.016	25.81
1.234	31.34
1.250	31.75
1.266	32.16
1.484	37.69
1.500	38.10
1.516	38.51
1.734	44.04
1.750	44.45
1.766	44.86
72.000	1828.80
144.000	3657.60
300.000	7620.00
1800.000	45720.00

TABLE IIA

LIGHT WALL TUBING SIZES						
Tubing Size Number	Minimum Inside Diameter (Inches)	Maximum Inside Diameter (Inches)	Nominal Inside Diameter (Inches)	Minimum Wall Thickness (Inches)	Maximum Wall Thickness (Inches)	Nominal Wall Thickness (Inches)
L02	0.109	0.141	0.125	0.031	0.047	0.039
L04	0.109	0.141	0.125	0.047	0.063	0.055
L06	0.141	0.172	0.156	0.047	0.063	0.055
L08	0.172	0.203	0.188	0.047	0.063	0.055
L10	0.234	0.266	0.250	0.047	0.079	0.063
L12	0.297	0.328	0.312	0.047	0.079	0.063
L14	0.359	0.391	0.375	0.047	0.079	0.063
L16	0.422	0.453	0.438	0.047	0.079	0.063
L18	0.484	0.516	0.500	0.047	0.079	0.063
L20	0.547	0.578	0.562	0.047	0.079	0.063
L22	0.609	0.641	0.625	0.047	0.079	0.063
L24	0.734	0.766	0.750	0.047	0.079	0.063
L26	0.859	0.891	0.875	0.047	0.079	0.063
L28	0.984	1.016	1.000	0.047	0.079	0.063

MLL-R-6855/4

TABLE IIB

HEAVY WALL TUBING SIZES						
Tubing Size Number	Minimum Inside Diameter (Inches)	Maximum Inside Diameter (Inches)	Nominal Inside Diameter (Inches)	Minimum Wall Thickness (Inches)	Maximum Wall Thickness (Inches)	Nominal Wall Thickness (Inches)
H02	0.109	0.141	0.125	0.094	0.110	0.102
H04	0.141	0.172	0.156	0.094	0.110	0.102
H06	0.172	0.203	0.188	0.094	0.110	0.102
H08	0.234	0.266	0.250	0.109	0.141	0.125
H10	0.297	0.328	0.312	0.109	0.141	0.125
H12	0.359	0.391	0.375	0.078	0.109	0.094
H14	0.359	0.391	0.375	0.109	0.141	0.125
H16	0.422	0.453	0.438	0.109	0.141	0.125
H18	0.484	0.516	0.500	0.109	0.141	0.125
H20	0.547	0.578	0.562	0.109	0.141	0.125
H22	0.609	0.641	0.625	0.109	0.141	0.125
H24	0.734	0.766	0.750	0.109	0.141	0.125
H26	0.859	0.891	0.875	0.109	0.141	0.125
H28	0.984	1.016	1.000	0.109	0.141	0.125
H30	1.234	1.266	1.250	0.109	0.141	0.125
H32	1.484	1.516	1.500	0.133	0.179	0.156
H34	1.734	1.766	1.750	0.133	0.179	0.156

TABLE III

TUBING LENGTH - L	
Tubing Length Number	L (Inches)
3	72.000
5	144.000
7	300.000
9	1800.000

TABLE IIC

EXTRA HEAVY WALL TUBING SIZES						
Tubing Size Number	Minimum Inside Diameter (Inches)	Maximum Inside Diameter (Inches)	Nominal Inside Diameter (Inches)	Minimum Wall Thickness (Inches)	Maximum Wall Thickness (Inches)	Nominal Wall Thickness (Inches)
E02	0.109	0.141	0.125	0.156	0.219	0.188
E04	0.141	0.172	0.156	0.156	0.219	0.188
E06	0.172	0.203	0.188	0.156	0.219	0.188
E08	0.234	0.266	0.250	0.156	0.219	0.188
E10	0.297	0.328	0.312	0.156	0.219	0.188
E12	0.359	0.391	0.375	0.219	0.281	0.250
E14	0.422	0.453	0.438	0.219	0.281	0.250
E16	0.484	0.516	0.500	0.156	0.219	0.188
E18	0.484	0.516	0.500	0.219	0.281	0.250

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Use of this specification sheet for US Army Communications-Electronics Command is restricted to Class 4 and Class 5.

## Custodians:

Army - MR  
Navy - AS  
Air Force - 20

## Preparing Activity:

Navy - AS

## Agent

DLA-GS  
(Project 9320-0473-04)

## Review Activities:

Army - AR, AT, AV, CR, ER, MI  
Air Force - 82, 99  
Navy - OS, SH  
DLA - CS, GS, IS

## User Activity:

Army - CE  
Navy - YD