INCH-POUND
MS25471F
19 October 2011
SUPERSEDING
MS25471E
06 December 2004

DETAIL SPECIFICATION SHEET

WIRE, ELECTRICAL, SILICONE-INSULATED, COPPER, 600 VOLT, 200 DEG. C, POLYESTER JACKET

Inactive for new design after 1 June 1998.

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

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-8777.

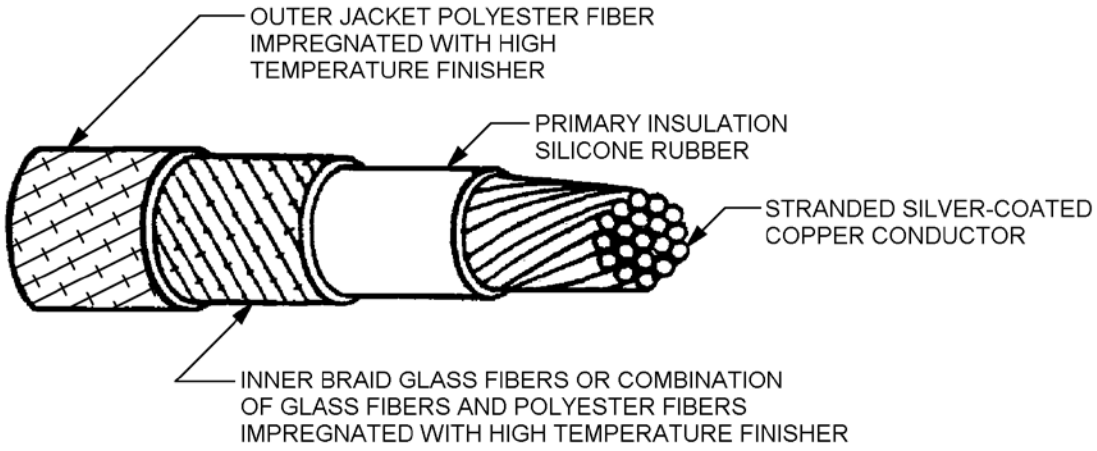

FIGURE 1. Cable.

TABLE I. Performance details.

Wire size	Abrasion test				Flaws test		Insulation and surface resistance			Life cycle and cold bend		
	Resistance, inches of tape min.	Tension load lbs.	Weight support bracket	Weight lbs.	Min ac voltage 60 Hz rms		Humidity resistance megohms per 200 feet min.	Insulation resistance megohms per 50 feet min.	Surface resistance megohm inches min	Mandrel diameter inches max		Test load life cycle cold bend lbs
					Primary insulation	Finished wire				Life cycle	Cold bend	
22	22	1	A	1	2000	5000	500	100	5.0	4.5	3	.75
20	22	1	A	1	2000	5000	500	100	5.0	4.5	3	.75
18	22	1	A	1	2000	5000	500	100	5.0	4.5	3	1.0
16	30	2	A	1	2000	5000	500	100	5.0	6.5	3	1.0
14	13	2	B	3	2000	5000	500	100	5.0	6.5	6	1.0
12	17	2	B	3	2000	5000	500	100	5.0	6.5	6	3.0
10	20	2	B	3	3000	5000				10	6	3.0
8	25	2	B	3	3000	5000				10	6	3.0
6	25	2	C	3	4000	5000				10	10	6.0
4	33	2	C	4.25	4000	5000				10	10	6.0
2	34	2	C	4.25	4000	5000				10	10	6.0
1	35	2	C	4.25	4000	5000				10	18	6.0
0	48	2	C	4.25	4000	5000				10	18	10.0
00	48	2	C	4.25	4000	5000				10	18	10.0

TABLE II. Finished wire construction.

Dash	Wire size	Number of strands	Max diameter of stranded conductor	Max resistance at 20°C (68°F) ohms/1000 ft	Diameter	Max. weight lbs/1000 ft
22	22	19	.033	15.2	.085 ± .005	5.8
20	20	19	.041	9.42	.095 ± .005	7.8
18	18	19	.052	6.03	.110 ± .005	10.8
16	16	19	.060	4.76	.125 ± .005	13.5
14	14	19	.074	2.99	.143 ± .007	20.0
12	12	19	.093	1.88	.163 ± .007	29.0
10	10	49	.128	1.16	.193 ± .007	45.0
8	8	133	.176	.70	.248 ± .007	72.0
6	6	133	.218	.436	.303 ± .007	107.0
4	4	133	.272	.274	.360 ± .010	165.0
2	2	665	.345	.179	.425 ± .010	262.0
1	1	817	.384	.144	.460 ± .010	317.0
01	0	1045	.432	.114	.535 ± .015	390.0
02	00	1330	.490	.090	.585 ± .015	500.0

TABLE III. Dimensions.

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.005	.13	.074	1.88	.163	4.14	.360	9.14
.007	.18	.085	2.16	.176	4.47	.384	9.75
.010	.25	.093	2.36	.193	4.90	.425	10.79
.015	.38	.095	2.41	.218	5.54	.432	10.97
.033	.84	.110	2.79	.248	6.30	.460	11.68
.041	1.04	.125	3.18	.272	6.91	.490	12.45
.052	1.32	.128	3.25	.303	7.70	.535	13.59
.060	1.52	.143	3.63	.345	8.76	.585	14.86

REQUIREMENTS

The procurement specification for this specification sheet is MIL-DTL-8777.
Dimensions are in inches.
Metric equivalents are given for information only.
Tensile strength (minimum): 800 psi before aging; 600 psi after aging.
Elongation (minimum): 1.5 inches (38 mm) [2 inch (51 mm) specimen stretched to 3.5 (89 mm) inches] before and after aging.
Insulation shrinkage: During and following the thermal shock or flash test, the primary insulation shall not shrink greater then .060 inch (1.52 mm) for all wire sizes.
Dimensions and configuration: See figure 1 and tables I, II and III.

Part or Identifying Number (PIN) example: MS25471 - 10

MS specification sheet number

Dash number

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced document. This document references MIL-DTL-8777.

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 6145-2011-032)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.