

MIL-W-22759/11F

10 September 1976

SUPERSEDING

MIL-W-22759/11E

21 April 1976

See also "Supersession
Data" on Page 3

MILITARY SPECIFICATION SHEET

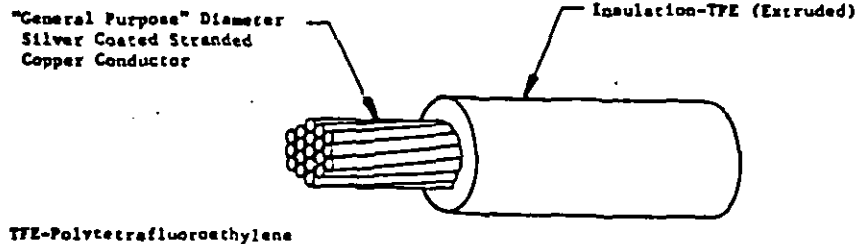
WIRE, ELECTRIC, FLUOROPOLYMER-INSULATED, EXTRUDED TFE,
SILVER-COATED COPPER CONDUCTOR, 600-VOLTThis specification is approved for use by all Depart-
ments and Agencies of the Department of Defense.The complete requirements for procuring the wire described herein shall
consist of this document and the issue in effect of Specification MIL-W-22759.

TABLE I. CONSTRUCTION DETAILS

Part No. 1/	Wire size	Stranding (Number of strands X AWG size of strands)	Diameter of stranded conductor (inches)		Finished wire		
			(min)	(max)	Resistance at 20°C (68°F) (ohms/1000 ft) (max)	Diameter (inches)	Weight (lbs/1000 ft) (max)
M22759/11-28-*	28	7 X 36	.014	.015	63.8	.033 ± .002	1.36
M22759/11-26-*	26	19 X 38	.018	.020	38.4	.038 ± .002	1.90
M22759/11-24-*	24	19 X 36	.023	.025	24.3	.043 ± .002	2.58
M22759/11-22-*	22	19 X 34	.029	.032	15.1	.049 ± .002	3.72
M22759/11-20-*	20	19 X 32	.037	.040	9.19	.058 ± .002	5.43
M22759/11-18-*	18	19 X 30	.046	.050	5.79	.068 ± .002	8.14
M22759/11-16-*	16	19 X 29	.052	.057	4.52	.075 ± .002	10.0
M22759/11-14-*	14	19 X 27	.065	.072	2.88	.090 ± .002	15.1
M22759/11-12-*	12	19 X 25	.082	.090	1.81	.111 ± .003	24.1
M22759/11-10-*	10	37 X 26	.106	.112	1.19	.139 ± .004	37.8
M22759/11-8-*	8	133 X 29	.158	.169	.658	.202 ± .004	65.5

1/ PART NO.: The asterisks in the part number column, Tables I through III, shall be replaced by color code designators in accordance with MIL-STD-681. Examples: Size 20, white - M22759/11-20-9; white with orange stripes - M22759/11-20-93.

① denotes changes

TABLE II. PERFORMANCE DETAILS

Part No.	Abrasion resistance (Procedure II)				Bend testing-			
	Resistance (inches of tape) (min) (initial condition)	Weight support bracket	Weight (lbs)	Tension load (lbs)	Mandrel diameter (inches) (+.33)		Test load (lbs) (+.33)	
					Life cycle (oven & bend tests) 1/	Cold bend test	Life cycle (oven & bend tests) 1/	Cold bend test
M22759/11-28-a	12	A	.50	1.0	.125	.250	.50	
M22759/11-26-a	18	A	.50	1.0	.125	.250	.50	
M22759/11-24-a	18	A	.50	1.0	.125	.250	.50	
M22759/11-22-a	24	A	.50	1.0	.250	.375	.75	
M22759/11-20-a	24	A	.50	1.0	.250	.375	.75	
M22759/11-18-a	20	B	.75	1.0	.250	.375	1.00	
M22759/11-16-a	20	B	.75	2.0	.375	.500	1.00	
M22759/11-14-a	15	B	1.00	2.0	.500	.750	2.00	
M22759/11-12-a	15	B	1.00	2.0	.500	.750	2.00	
M22759/11-10-a	15	B	1.00	2.0	.750	1.00	3.00	
M22759/11-8-a	15	B	1.00	2.0	.750	1.00	3.00	

1/ Also for bend tests after immersion.

ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C (392°F) max conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

SPARK TEST OF PRIMARY INSULATION: Not required

② PULSE DIELECTRIC TEST: 100% test; 8.0 kilovolts (peak) for sizes 18 and smaller, 6.3 kilovolts (peak) for sizes 16 and larger

INSULATION RESISTANCE: 50,000 megohms for 1000 ft (min)

WRAP TEST: "Wrap back" test required; no cracking

Oven temperature, 313 ±2°C (595.4 ±3.6°F)

BLOCKING: 240 ±2°C (500 ±3.6°F)

SHRINKAGE: 0.03 inch max at 290 ±2°C (534 ±3.6°F)

WICKING: No requirement

LOW TEMPERATURE (COLD SEND):

Bend temperature: -65 ±2°C (-85 ±3.6°F)

Dielectric test, 2200 volts (rms), 60Hz

THERMAL SHOCK: Oven temperature, 200 ±2°C (392 ±3.6°F)

Max change in measurement, 0.04 inch

FLAMMABILITY: Post-flame dielectric test not required

LIFE CYCLE: Oven temperature 275 ±2°C (527 ±3.6°F)

Dielectric test, 2200 volts (rms), 60Hz

DIELECTRIC TEST AFTER IMMERSION: 2200 volts (rms), 60Hz

ABRASION RESISTANCE AFTER IMMERSION: No requirement

HUMIDITY RESISTANCE: No requirement

SURFACE RESISTANCE: 500 megohm-inches (min), initial and final readings

SPOKE: 290°C (534°F)

ACID RESISTANCE: Required

Dielectric test, 2200 volts (rms), 60Hz

COLOR: In accordance with MIL-STD-104, Class I; white preferred

COLOR STRIPING OR BANDING DURABILITY: 250 cycles (500 strokes) (min), 500 grams weight

IDENTIFICATION DURABILITY: 125 cycles (250 strokes) (min), 500 grams weight

WIRE LENGTH REQUIREMENTS: Schedule A

SUPERSESSOR DATA: The wire of this specification sheet, by part number, replaces and supersedes the wire of MS21985(AS) (canceled) in accordance with Table III. MS21985(AS) included wire sizes 28 through 16 only.

TABLE III. SUPERSESSION BY PART NUMBER

Part number MS21985 (AS)	Part number MIL-W-22759/11
MS21985-28-*	M22759/11-28-*
MS21985-26-*	M22759/11-26-*
MS21985-24-*	M22759/11-24-*
MS21985-22-*	M22759/11-22-*
MS21985-20-*	M22759/11-20-*
MS21985-18-*	M22759/11-18-*
MS21985-16-*	M22759/11-16-*

Custodians:

Navy - AS
 Army - EL
 Air Force - 99

Preparing activity:

Navy - AS
 (Project No. 6145-0701-5)

Review activities:

Navy - EC, OS
 Army - ME, MI, MU
 Air Force -
 DSA - IS
 NSA

User activities:

Navy - MC
 Army - AT, AV
 Air Force - 11

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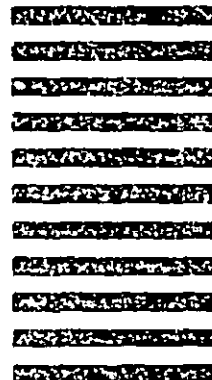
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b. Recommended Wording:

c. Reason/Rationale for Recommendation:

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