FEDERAL SUPPLY CLASS
6145

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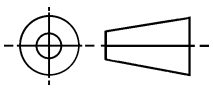
ISSUED 2000-09 REAFFIRMED 2007-11

THIRD ANGLE PROJECTION



PREPARED BY SAE SUBCOMMITTEE AE-8D

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

WIRE, ELECTRICAL, FLUOROPOLYMER-INSULATED, EXTRUDED TFE, SILVER-COATED COPPER CONDUCTOR, 1000 VOLT

AS22759/9
SHEET 1 OF 4

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THE COMPLETE REQUIREMENTS FOR PROCURING THE WIRE DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE ISSUE IN EFFECT OF SPECIFICATION MIL-W-22759.

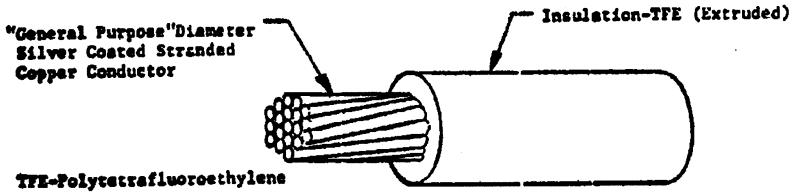

TABLE I. CONSTRUCTION DETAILS.

Part No. 1/	Wire size	Stranding (Number of strands X AWG gage 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)
M22759/9-28-*	28	7 X 36	.014	.015	63.8	.043 ±.002	1.90
M22759/9-26-*	26	19 X 38	.018	.020	38.4	.048 ±.002	2.57
M22759/9-24-*	24	19 X 36	.023	.025	24.3	.053 ±.002	3.33
M22759/9-22-*	22	19 X 34	.029	.032	15.1	.060 ±.002	4.60
M22759/9-20-*	20	19 X 32	.037	.040	9.19	.068 ±.002	6.40
M22759/9-18-*	18	19 X 30	.046	.050	5.79	.078 ±.002	9.10
M22759/9-16-*	16	19 X 29	.052	.057	4.52	.085 ±.002	11.0
M22759/9-14-*	14	19 X 27	.065	.072	2.88	.100 ±.003	16.4
M22759/9-12-*	12	19 X 25	.082	.090	1.81	.120 ±.004	25.3
M22759/9-10-*	10	37 X 26	.106	.112	1.19	.141 ±.004	38.2
M22759/9-8-*	8	133 X 29	.158	.169	.558	.207 ±.005	68.8

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 - M22759/9-20-9; white with orange stripe - M22759/9-20-93.

TABLE II. PERFORMANCE DETAILS.

Part No.	Abrasion resistance (Procedure II)				Bend testing			
					Mandrel diameter (inches) (±3%)		Test load (lbs) (±3%)	
	Resistance (inches of tape) (min) (initial condition)	Weight support bracket	Weight (lbs)	Tension load (lbs)	Life cycle (oven & bend tests) 1/	Cold bend test	Life cycle (oven & bend tests) 1/	Cold bend test
M22759/9-28-*	24	A	.50	1.0	.125	.250	.50	
M22759/9-26-*	24	A	.50	1.0	.125	.250	.50	
M22759/9-24-*	30	A	.50	1.0	.125	.250	.50	
M22759/9-22-*	30	A	.50	1.0	.250	.375	.75	
M22759/9-20-*	30	A	.50	1.0	.250	.375	.75	
M22759/9-18-*	36	B	.75	1.0	.250	.375	1.00	
M22759/9-16-*	36	B	.75	2.0	.375	.500	1.00	
M22759/9-14-*	36	B	1.25	2.0	.500	.750	2.00	
M22759/9-12-*	36	B	1.25	2.0	.500	.750	2.00	
M22759/9-10-*	48	B	1.25	2.0	.750	1.00	3.00	
M22759/9-8-*	48	C	2.00	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: 1000 volts (rms) at sea level

SPARK TEST OF PRIMARY INSULATION: Not required

IMPULSE DIELECTRIC TEST: 9.5 kilovolts (peak), 100% test

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: 260 ±2°C (500 ±3.6°F)

SHRINKAGE: 0.03 inch max at 290 ±2°C (554 ±3,6°F)

WICKING: No requirement

LOW TEMPERATURE (COLD BEND):
Bend temperature: -65 ±2°C (-85 ±3.6°F)
Dielectric test, 5000 volts (rms), 60 Hz

THERMAL SHOCK:
Oven temperature 200 ±2°C (392 ±3.6°F)
Max change in measurement
Sizes 28 through 12: 0.060 inch
Sizes 10 through 8: 0.100 inch

FLAMMABILITY: Post-flame dielectric test not required

LIFE CYCLE:
Oven temperature 275 ±2°C (527 ±3.6°F)
Dielectric test, 5000 volts (rms), 60 Hz

DIELECTRIC TEST AFTER IMMERSION: 5000 volts (rms), 60 Hz