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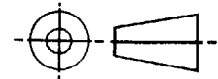
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AS22759/80

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THIRD ANGLE PROJECTION



ISSUED 2000-06

PREPARED BY SAE SUBCOMMITTEE AE-8D

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400 Commonwealth Drive, Warrendale, PA 15096-0001

**AEROSPACE STANDARD**

WIRE, ELECTRICAL, POLYTETRAFLUOROETHYLENE/POLYIMIDE  
INSULATED, LIGHT WEIGHT, TIN COATED, COPPER CONDUCTOR,  
150°C, 600 VOLTS

**AS22759/80**  
SHEET 1 OF 7

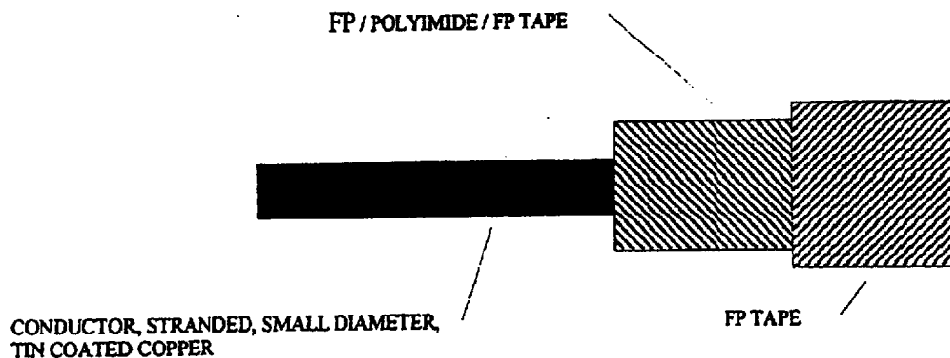
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AS22759/80

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DoDISS) SPECIFIED IN THE SOLICITATION: MIL-W-22759.



FP - Fluorocarbon Polymer, modified Polytetrafluoroethylene (PTFE)

FIGURE I. GENERAL CONFIGURATION.

TABLE I. CONSTRUCTION DETAILS.

Part No. <sup>1/</sup>	Wire Size	Conductor			Finished Wire			
		Stranding (number of strands x AWG gauge of strands)	Diameter (in.)		Resistance at 20° C (68°F) (ohms/ 1000 ft max.)	Diameter (in.)		Weight (lb/1000 Ft) (Max.)
			MIN.	MAX.		Min.	Max.	
M22759/80-26-*	26	19 x 38	0.0175	0.0204	41.3	0.030	0.034	1.43
M22759/80-24-*	24	19 x 36	0.0225	0.0244	26.2	0.034	0.038	1.93
M22759/80-22-*	22	19 x 34	0.0285	0.0314	16.2	0.040	0.043	2.85
M22759/80-20-*	20	19 x 32	0.0365	0.0394	9.88	0.048	0.051	4.38
M22759/80-18-*	18	19 x 30	0.0455	0.0494	6.23	0.056	0.060	6.60
M22759/80-16-*	16	19 x 29	0.0515	0.0554	4.81	0.063	0.067	8.30
M22759/80-14-*	14	19 x 27	0.0645	0.0694	3.06	0.076	0.080	12.6
M22759/80-12-*	12	37 x 28	0.0835	0.0894	2.02	0.096	0.100	19.6
M22759/80-10-*	10	37 x 26	0.106	0.112	1.26	0.119	0.123	30.6

<sup>1/</sup> Part Number: The asterisks in the part number column of Table I shall be replaced by color code designators in accordance with MIL-STD-681. Examples: M22759/80-20-93 is a 20 AWG white with orange stripe.

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**AS22759/80**  
SHEET 2 OF 7

AS22759/80

TABLE II. WIRE INSULATION MATERIALS. 1/

Tape Code	Thickness (Nom)	Material
1	0.0012	.00045 (FP) / .00065 (Polyimide) / .0001 (FP)
2	0.0020	FP (Unsintered)
3	0.0025	FP (Unsintered)

1/ Physical properties of FP unsintered tapes shall be in accordance with MIL-W-22759 requirements.

TABLE III. PHYSICAL PROPERTIES OF FP/POLYIMIDE/FP TAPES.

Tensile Strength	20,000 lb/in sq. (average minimum)
Tensile Modulus	400,000 lb/in sq. (average minimum)
Elongation	40 percent (average minimum)
Dielectric Strength	4,000 volts/mil (average minimum)
0.00045 FP Layer	Distinguishable color (next to conductor)

TABLE IV. TAPE OVERLAP REQUIREMENTS. 1/

Wire Size	Wrap 1			Wrap 2			Nominal Wall Thickness (mils)
	Tape Code	Percent Overlap		Tape Code	Percent Overlap		
		Min	Max		Min	Max	
26	1	50.5	54.0	2	50.5	54.0	5.8
24	1	50.5	54.0	2	50.5	54.0	5.8
22	1	50.5	54.0	2	50.5	54.0	5.8
20	1	50.5	54.0	2	50.5	54.0	5.8
18	1	50.5	54.0	2	50.5	54.0	5.8
16	1	50.5	54.0	2	50.5	54.0	5.8
14	1	50.5	54.0	2	50.5	54.0	5.8
12	1	50.5	54.0	3	50.5	54.0	6.7
10	1	50.5	54.0	3	50.5	54.0	6.7

1/ Wrap 1 is innermost tape which is in contact with the conductor with the .00045 inch FP side of the tape against the conductor.

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SHEET 3 OF 7