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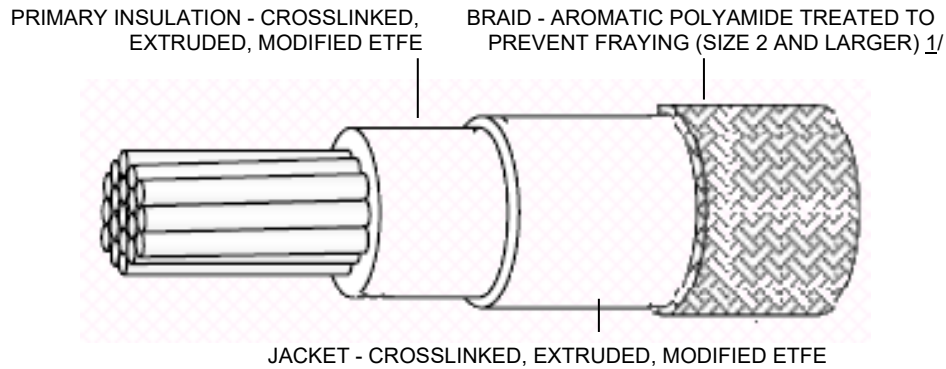
AS22759™/34

RATIONALE

SPECIFICATION UPDATED TO INCLUDE AS29606 CONDUCTOR REQUIREMENTS, ROHS RESTRICTIONS AND AS22759 MODIFICATIONS. THIS CHANGE ALSO INCREASES THE MAXIMUM WEIGHT REQUIREMENTS FOR WIRE SIZES 8 THROUGH 02 TO ACCOUNT FOR INCREASED CIRCULAR MIL AREA (CMA) ADOPTED IN AS29606. REMOVED REQUIREMENT FOR PROPELLANT RESISTANCE.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22759.



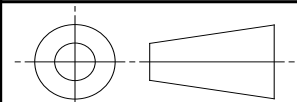
ETFE - ETHYLENE TETRAFLUOROETHYLENE
CONDUCTOR - STRANDED TIN COATED COPPER

- ^{1/} BRAID: BRIGHT AROMATIC POLYAMIDE YARN, 200 DENIER, 100 FILAMENTS, TIGHTLY FORMED, UNIFORM IN APPEARANCE, TREATED WITH A CLEAR FINISHER COATING. THE FINISHER COATING SHALL BE COMPATIBLE WITH THE TEMPERATURE RATING AND PERFORMANCE REQUIREMENTS OF THE INSULATED WIRE.

FIGURE 1 - AS22759/34 CONFIGURATION

For more information on this standard, visit
<https://www.sae.org/standards/content/AS22759/34B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS22759



AEROSPACE STANDARD

WIRE, ELECTRICAL, FLUOROPOLYMER-INSULATED,
CROSSLINKED MODIFIED ETFE, NORMAL WEIGHT,
TIN-COATED, COPPER,
150 °C, 600 VOLT, ROHS

AS22759™/34
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TABLE 1 - CONSTRUCTION DETAILS FOR FINISHED WIRE

PART NO. 1/	WIRE SIZE	STRANDING (NUMBER OF STRANDS X SIZE GAUGE OF STRANDS) 3/	DIAMETER OF STRANDED CONDUCTOR (INCHES) 3/		FINISHED WIRE		
			(MIN)	(MAX)	RESISTANCE AT 20 °C (68 °F) (OHMS/1000 FT) (MAX)	DIAMETER (INCHES)	WEIGHT (LB/1000 FT) (MAX)
M22759/34-24-*	24	19 X 36	.0225	.0244	26.2	.045 ± .002	2.30
M22759/34-22-*	22	19 X 34	.0285	.0314	16.2	.050 ± .002	3.30
M22759/34-20-*	20	19 X 32	.0365	.0394	9.88	.058 ± .002	4.70
M22759/34-18-*	18	19 X 30	.0455	.0494	6.23	.070 ± .003	7.20
M22759/34-16-*	16	19 X 29	.0515	.0554	4.81	.077 ± .003	9.00
M22759/34-14-*	14	19 X 27	.0645	.0694	3.06	.094 ± .003	13.8
M22759/34-12-*	12	37 X 28	.0835	.0894	2.02	.111 ± .003	20.5
M22759/34-10-*	10	37 X 26	.106	.114	1.26	.134 ± .004	32.4
M22759/34-8-*	8	133 X 29	.158	.173	.701	.195 ± .008	63.3
M22759/34-6-*	6	133 X 27	.198	.217	.445	.241 ± .010	99.2
M22759/34-4-*	4	133 X 25	.250	.274	.280	.310 ± .010	158.
M22759/34-2-*	2	665 X 30	.320	.340	.183	.405 ± .016	251.
M22759/34-1-*	1	817 X 30	.360	.380	.149	.445 ± .016	305.
M22759/34-01-*	0 2/	1045 X 30	.395	.425	.116	.485 ± .016	396.
M22759/34-02-*	00 2/	1330 X 30	.440	.475	.091	.545 ± .016	511.

1/ PART NUMBER: THE ASTERISKS IN THE PART NUMBER COLUMN, TABLES 1 AND 3, SHALL BE REPLACED BY COLOR CODE DESIGNATORS IN ACCORDANCE WITH MIL-STD-681, EXCEPT THAT FOR SIZE 2 AND LARGER THE BRAID PREFERRED COLOR IS DARK GREEN WITH THE COLOR DESIGNATOR 5D. EXAMPLE: SIZE 2 DARK GREEN - AS22759/34-2-5D. WHITE IS AN ACCEPTABLE ALTERNATE WITH A COLOR DESIGNATOR 9. SIZE 20, WHITE WITH ORANGE STRIPE - M22759/34-20-93. PRINTING OF COLOR CODE DESIGNATOR ON SURFACE OF WIRE INSULATION IS NOT REQUIRED.

2/ WIRE SIZE 0 AND 00 HAVE BEEN SUPERSEDED BY -01 AND -02, RESPECTIVELY.

3/ CONDUCTOR SHALL CONFORM TO AS29606 TYPE TCC SMALL DIAMETER TIN PLATED COPPER CONDUCTOR FOR SIZES 24 THROUGH 12. SIZE 10 THROUGH 02 SHALL CONFORM TO GENERAL PURPOSE TIN PLATED COPPER CONDUCTOR.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22759.

1. WIRE CONSTRUCTION:

WIRE CONSTRUCTION SHALL BE IN ACCORDANCE WITH FIGURE 1, TABLES 1, 2, 3, AND 4.

2. WIRE PERFORMANCE RATING:

TEMPERATURE RATING: 150 °C (302 °F) MAXIMUM CONDUCTOR CONTINUOUS TEMPERATURE.

VOLTAGE RATING: 600 VOLTS (RMS) AT SEA LEVEL. THIS INSULATION SYSTEM HAS BEEN USED IN AEROSPACE APPLICATIONS USING 115 VOLTS (PHASE TO NEUTRAL), 400 HERTZ AC AND 28 VOLTS DC. VERIFICATION OF THE SUITABILITY OF THIS PRODUCT FOR USE IN OTHER ELECTRICAL SYSTEM CONFIGURATIONS IS THE RESPONSIBILITY OF THE USER.

3. MATERIALS AND PHYSICAL PROPERTIES:

REFER TO AS22759 FOR MATERIAL REQUIREMENT. MATERIALS USED IN THE MANUFACTURE OF THESE PRODUCTS SHALL COMPLY WITH THE RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE 2002/95/EC.

	AEROSPACE STANDARD	AS22759™/34 SHEET 2 OF 5	REV. B
	WIRE, ELECTRICAL, FLUOROPOLYMER-INSULATED, CROSSLINKED MODIFIED ETFE, NORMAL WEIGHT, TIN-COATED, COPPER, 150 °C. 600 VOLT. ROHS		



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