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REV.
B

AS81044™/13

RATIONALE

LIMIT SCOPE CHANGE REQUIRED TO CORRECT SPARK TEST VOLTAGE LEVEL.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS81044.

FEDERAL SUPPLY CLASS
6145

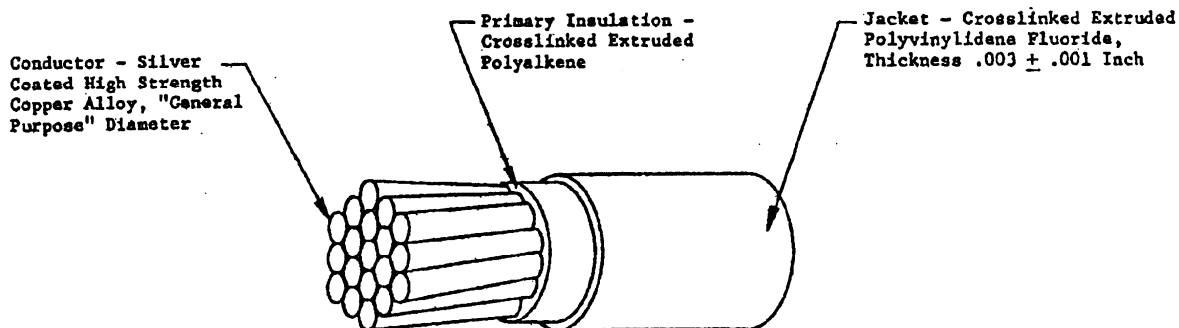
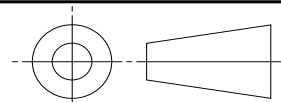


FIGURE 1 - AS81044/13 CONSTRUCTION

SAE values your input. To provide feedback on this Technical Report, please visit <http://standards.sae.org/AS81044/13B>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS81044



AEROSPACE STANDARD

WIRE, ELECTRIC, CROSSLINKED POLYALKENE INSULATED, SILVER-COATED HIGH STRENGTH COPPER ALLOY, LIGHT WEIGHT, 600-VOLT, 150 °C

AS81044™/13
SHEET 1 OF 3

REV.
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TABLE 1 - CONSTRUCTION DETAILS

PART NO. 1/	WIRE SIZE	STRANDING (NUMBER OF STRANDS X AWG GAGE OF STRANDS)	DIAMETER OF STRANDED CONDUCTOR (IN)		FINISHED WIRE			
			(MIN)	(MAX)	RESISTANCE AT 20 °C (68 °F) (OHMS/1000 FT) (MAX)	DIAMETER (IN)	WEIGHT (LBS/1000 FT)	
							(NOM) 2/	(MAX)
M81044/13-30-*	30	7 X 38	.011	.012	117.4	.027 ± .002	.67	.71
M81044/13-28-*	28	7 X 36	.014	.015	74.4	.030 ± .002	.91	.96
M81044/13-26-*	26	19 X 38	.018	.020	44.8	.034 ± .002	1.3	1.4
M81044/13-24-*	24	19 X 36	.023	.025	28.4	.040 ± .002	2.0	2.1
M81044/13-22-*	22	19 X 34	.029	.032	17.5	.047 ± .002	2.9	3.1
M81044/13-20-*	20	19 X 32	.037	.040	10.7	.055 ± .002	4.4	4.6

1/ PART NO.: THE ASTERISKS IN THE PART NUMBER COLUMN, TABLES 1 AND 2, SHALL BE REPLACED BY COLOR CODE DESIGNATORS IN ACCORDANCE WITH MIL-STD-681. EXAMPLES: SIZE 20, WHITE – M81044/10-20-9; WHITE WITH ORANGE STRIPE – M81044/10-20-93.

2/ NOMINAL VALUES ARE FOR INFORMATION ONLY. NOMINAL VALUES ARE NOT REQUIREMENTS.

TABLE 2 - PERFORMANCE DETAILS

PART NO.	BEND TESTING				
	MANDREL DIAMETER (IN) (±3%)			TEST LOAD (LBS) (±3%)	
	LIFE CYCLE TEST AND ACCELERATED AGING TEST 1/	COLD BEND TEST	WRAP TEST	LIFE CYCLE TEST AND ACCELERATED AGING TEST 1/	COLD BEND TEST
M81044/13-30-*	.375	.375	.188	.25	.50
M81044/13-28-*	.375	.375	.188	.25	.50
M81044/13-26-*	.50	.50	.250	.25	.50
M81044/13-24-*	.50	.50	.250	.38	.50
M81044/13-22-*	.75	.75	.250	.38	1.0
M81044/13-20-*	.75	.75	.250	.38	1.0

1/ ALSO FOR BEND TESTS AFTER IMMERSION.

WIRE RATINGS AND ADDITIONAL REQUIREMENTS:

1. TEMPERATURE RATING: 150 °C (302 °F) MAX CONDUCTOR TEMPERATURE.
2. VOLTAGE RATING: 600 VOLTS (RMS) AT SEA LEVEL.
3. 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.
4. ACCELERATED AGING: OVEN TEMPERATURE, 300 °C ± 2 °C (572 °F ± 3.6 °F) FOR 6 HOURS; FOR IDENTIFICATION LEGIBILITY, 225 °C ± 2 °C (437 °F ± 3.6 °F) FOR 6 HOURS.
5. BLOCKING: 150 °C ± 2 °C (302 °F ± 4 °F).
6. COLOR: IN ACCORDANCE WITH MIL-STD-104, CLASS 1; WHITE PREFERRED.
7. FLAMMABILITY: 30 SECONDS (MAX); 3.0 INCHES (MAX); NO FLAMING OF TISSUE PAPER.
8. HUMIDITY RESISTANCE: 5000 MEGOHMS FOR 1000 FT, MIN INSULATION RESISTANCE AFTER HUMIDITY EXPOSURE.
9. IDENTIFICATION OF PRODUCT: NOT REQUIRED ON SIZES 28 OR 30.
10. IDENTIFICATION, STRIPING, OR BANDING DURABILITY: 125 CYCLES (250 STROKES) (MIN), 500 GRAMS WEIGHT.

	AEROSPACE STANDARD	AS81044™/13 SHEET 2 OF 3	REV. B 
	WIRE, ELECTRIC, CROSSLINKED POLYALKENE INSULATED, SILVER-COATED HIGH STRENGTH COPPER ALLOY, LIGHT WEIGHT, 600-VOLT, 150 °C		

