

REV.
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SAE AS81044/5

FEDERAL SUPPLY CLASS
6145

RATIONALE

LIMITED SCOPE REVISION TO ADD AS81044/5-A1

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE WIRE DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE ISSUE IN EFFECT OF SPECIFICATION AS81044.

INACTIVE FOR NEW DESIGN IN AIRCRAFT APPLICATIONS AFTER DATE OF ISSUE. USE AS81044/6.

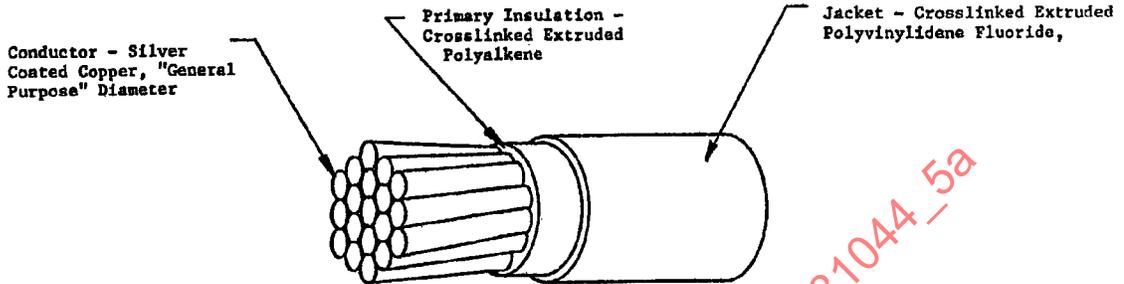
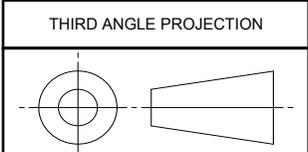


FIGURE 1 - AS81044/5 CONSTRUCTION

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CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS81044

SAE Aerospace
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AEROSPACE STANDARD

WIRE, ELECTRIC, CROSSLINKED POLYALKENE INSULATED, SILVER-COATED COPPER, NORMAL WEIGHT, 600-VOLT, 150°C

SAE AS81044/5
SHEET 1 OF 3

REV.
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ISSUED 2000-04 REAFFIRMED 2007-11 REVISED 2011-09

TABLE 1 – CONSTRUCTION DETAILS

PART NO. ^{1/}	WIRE SIZE	STRANDING (NUMBER OF STRANDS X AWG GAGE OF STRANDS)	DIAMETER OF STRANDED CONDUCTOR (INCHES)		FINISHED WIRE				JACKET THICKNESS (INCHES)
			(MIN)	(MAX)	RESISTANCE AT 20 °C (68 °F) (OHMS/1000 FT). (MAX)	DIAMETER (INCHES)	WEIGHT (LBS/1000 FT)		
							(NOM) ^{2/}	(MAX)	
M81044/5-24-*	24	19 X 36	.023	.025	24.3	.057 ± .002	2.8	3.0	.005 ± .001
M81044/5-22-*	22	19 X 34	.029	.032	15.1	.069 ± .003	4.1	4.3	.005 ± .001
M81044/5-20-*	20	19 X 32	.037	.040	9.19	.078 ± .003	5.8	6.1	.005 ± .001
M81044/5-18-*	18	19 X 30	.046	.050	5.79	.088 ± .003	8.3	8.7	.005 ± .001
M81044/5-16-*	16	19 X 29	.052	.057	4.52	.097 ± .004	10.3	10.9	.005 ± .001
M81044/5-14-*	14	19 X 27	.065	.072	2.88	.115 ± .004	15.5	16.2	.005 ± .001
M81044/5-12-*	12	37 X 28	.084	.089	1.90	.131 ± .004	23.0	24.2	.005 ± .001
M81044/5-10-*	10	37 X 26	.106	.112	1.19	.161 ± .005	35.3	36.5	.005 ± .001
M81044/5-8-*	8	133 X 29	.158	.169	.658	.219 ± .006	64.8	68.3	.005 ± .001
M81044/5-6-*	6	133 X 27	.198	.213	.418	.269 ± .007	99.2	108.	.005 ± .001
M81044/5-4-*	4	133 X 25	.250	.268	.264	.325 ± .008	158.	166.	.005 ± .001
M81044/5-2-*	2	665 X 30	.320	.340	.170	.404 ± .012	244.	265.	.010 ± .002
M81044/5-0-*	0	1045 X 30	.405	.425	.108	.494 ± .016	370.	399.	.010 ± .002

^{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 – M81044/5-20-9; WHITE WITH ORANGE STRIPE – M81044/5-20-93

^{2/} NOMINAL VALUES ARE FOR INFORMATION ONLY. NOMINAL VALUES ARE NOT REQUIREMENTS.

TABLE 2 – PERFORMANCE DETAILS

PART NO.	ABRASION RESISTANCE (PROCEDURE I)				BEND TESTING					
					MANDREL DIAMETER (INCHES) (±3%)			TEST LOAD (LBS) (±3%)		
	RESISTANCE (INCHES OF TAPE) (MIN) (INITIAL AND AFTER IMMERSION)	WEIGHT SUPPORT BRACKET	WEIGHT (LBS)	TENSION LOAD (LBS)	LIFE CYCLE TEST AND ACCELERATED AGING TEST ^{1/}	COLD BEND TEST	WRAP TEST	LIFE CYCLE TEST AND ACCELERATED AGING TEST ^{1/}	COLD BEND TEST	
M81044/5-24-*	12	A	1.0	1.0	.50	1.0	.250	1.0	3.0	
M81044/5-22-*	22	A	1.0	1.0	.75	1.0	.250	3.0	3.0	
M81044/5-20-*	22	A	1.0	1.0	.75	1.0	.250	4.0	4.0	
M81044/5-18-*	22	A	1.0	1.0	1.00	1.5	.375	4.0	4.0	
M81044/5-16-*	30	A	1.0	2.0	1.00	1.5	.375	5.0	5.0	
M81044/5-14-*	13	B	3.0	2.0	1.50	2.0	.500	5.0	5.0	
M81044/5-12-*	17	B	3.0	2.0	2.0	2.0	.500	5.0	5.0	
M81044/5-10-*	20	B	3.0	3.0	3.0	3.0	.750	5.0	5.0	
M81044/5-8-*	25	B	3.0	3.0	3.0	4.0	.750	6.0	6.0	
M81044/5-6-*	25	C	3.0	4.0	4.0	5.0	1.00	6.0	10.0	
M81044/5-4-*	33	C	4.25	4.0	5.0	6.0	1.25	6.0	10.0	
M81044/5-2-*	34	C	4.25	5.0	6.0	8.0	3.00	6.0	15.0	
M81044/5-0-*	48	C	4.25	5.0	8.0	10.0	4.00	7.0	15.0	

^{1/} ALSO FOR BEND TESTS AFTER IMMERSION.