FEDERAL SUPPLY CLASS
6145

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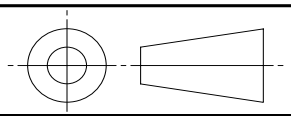
ISSUED 2004-06

THIRD ANGLE PROJECTION



CUSTODIAN: SAE AE-8/AE-8D

PROCUREMENT SPECIFICATION: MIL-C-85485

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CABLE, ELECTRIC, FILTER LINE, COMPONENT WIRE, TIN-COATED COPPER CONDUCTOR, RADIO FREQUENCY, ABSORPTIVE, 150°C, 600-VOLT

AS85485/9
SHEET 1 OF 4

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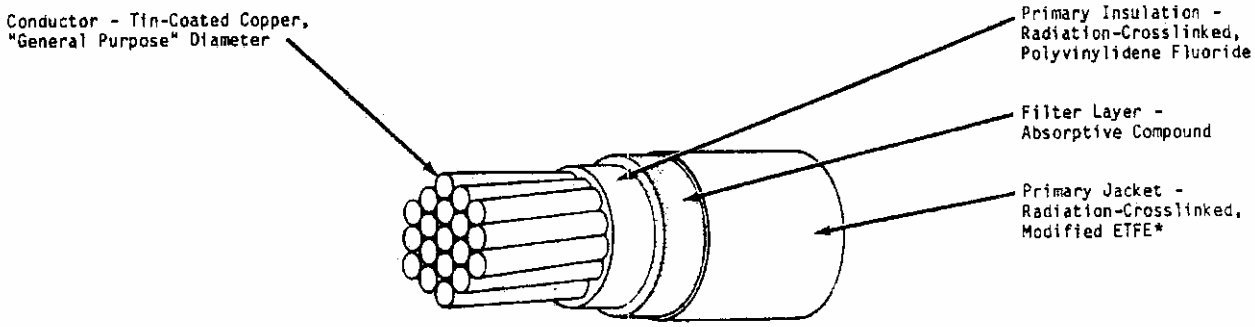

*ETFE - Ethylene-Tetrafluoroethylene Copolymer.

FIGURE 1. GENERAL CONFIGURATION

TABLE I. CONSTRUCTION DETAILS

Part No. 1/	Wire Size	Stranding (number of strands x AWG gauge 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)
M85485/9-22-*	22	19 x 34	.029	.033	16.2	.051 ± .003	4.0
M85485/9-20-*	20	19 x 32	.037	.041	9.88	.059 ± .003	5.8
M85485/9-18-*	18	19 x 30	.046	.051	6.23	.070 ± .003	8.7
M85485/9-16-*	16	19 x 29	.052	.058	4.81	.078 ± .004	11.2
M85485/9-14-*	14	19 x 27	.065	.073	3.06	.095 ± .004	16.1
M85485/9-12-*	12	37 x 28	.084	.090	2.02	.112 ± .004	24.0
M85485/9-10-*	10	37 x 26	.106	.114	1.26	.136 ± .006	37.0

1/ PART NO.: The asterisks in the part number column, Tables I, II and III, shall be replaced by color code designators in accordance with MIL-C-85485.

TABLE II. PERFORMANCE DETAILS

Part No.	Bend Testing			
	Mandrel Diameter (inches) (±3%)		Test Load (lbs) (±3%)	
	Crosslinking Proof, Immersion and Life Cycle Tests	Cold Bend Test	Crosslinking Proof, Immersion and Life Cycle Tests	Cold Bend Test
M85485/9-22-*	.500	2.00	.75	3.00
M85485/9-20-*	.750	2.50	1.25	4.00
M85485/9-18-*	1.00	3.00	1.75	4.00
M85485/9-16-*	1.00	3.00	2.00	5.00
M85485/9-14-*	1.00	5.00	2.00	5.00
M85485/9-12-*	1.50	6.00	2.50	5.00
M85485/9-10-*	1.50	8.00	2.50	5.00

RATINGS:

TEMPERATURE RATING: 150°C (302°F) MAX CONTINUOUS CONDUCTOR TEMPERATURE.
VOLTAGE RATING: 600 VOLTS (RMS) AT SEA LEVEL.

ADDITIONAL REQUIREMENTS:

ATTENUATION (INSERTION LOSS): THE WIRE OF THIS SPECIFICATION SHEET, WHEN SHIELDED IN ACCORDANCE WITH M85485/12-**T1*, SHALL MEET THE ATTENUATION REQUIREMENTS OF TABLE III AS SPECIFIED FOR THE APPLICABLE SIZE OF WIRE.

BLOCKING: 200° ± 3°C (392° ± 5°F) FOR 6 HOURS

COLOR: PRIMARY INSULATION - NATURAL
FILTER LAYER - BLACK
PRIMARY JACKET - LIGHT VIOLET

COLOR STRIPING DURABILITY: 125 CYCLES (250 STROKES) (MIN), 500 GRAMS WEIGHT.

CONCENTRICITY: PRIMARY INSULATION - 50% (MIN); FINISHED WIRE - 70% (MIN).

CROSSLINKING PROOF TEST: 7 HOURS AT 300° ± 3°C (572° ± 5°F).

FLAMMABILITY: 3 SECONDS (MAX); 3 INCHES (MAX).

HUMIDITY RESISTANCE: INSULATION RESISTANCE, 5000 MEGOHMS FOR 1000 FEET (MIN).

IDENTIFICATION DURABILITY: 125 CYCLES (250 STROKES) (MIN), 500 GRAMS WEIGHT.

IMMERSION: DIAMETER INCREASE 5% (MAX); NO CRACKING, NO DIELECTRIC BREAKDOWN.

INSULATION ELONGATION AND TENSILE STRENGTH: PRIMARY INSULATION, FILTER LAYER AND PRIMARY JACKET PULLED TOGETHER.
ELONGATION, 50% (MIN)
TENSILE STRENGTH, 3000 LBF/IN^2 (MIN)

INSULATION FLAWS: PRIMARY INSULATION ONLY
SPARK TEST; 1.5 KILOVOLTS (RMS), 60 HZ
IMPULSE DIELECTRIC TEST; 6.0 KILOVOLTS (PEAK)
FINISHED WIRE
SPARK TEST; 3.0 KILOVOLTS (RMS), 60 HZ
IMPULSE DIELECTRIC TEST; 8.0 KILOVOLTS (PEAK)

INSULATION RESISTANCE: 5000 MEGOHMS FOR 1000 FEET (MIN)

INSULATION THICKNESS: PRIMARY INSULATION 0.002 INCH (MIN)
FILTER LAYER; AVERAGE 0.0025 INCH (MIN)
PRIMARY JACKET; 0.0035 INCH (MIN)

LIFE CYCLE: 168 HOURS AT 200° ± 3°C (392° ± 5°F)

LOW TEMPERATURE-COLD BEND: -65° ± 2°C (-85° ± 4°F) FOR 4 HOURS

SHRINKAGE: 0.125 INCH (MAX) AT 200° ± 3°C (392° ± 5°F)

SMOKE: 200° ± 2°C (392° ± 4°F); NO VISIBLE SMOKE.

SURFACE RESISTANCE: 500 MEGOHM-INCHES (MIN), INITIAL AND FINAL READINGS.

THERMAL SHOCK RESISTANCE: OVEN TEMPERATURE, 150° ± 3°C (302° ± 5°F)
MAX. CHANGE IN MEASUREMENT, 0.060 INCH

THERMAL STABILITY: 1250 HOURS AT 180° ± 3°C (356° ± 5°F). THE WIRE OF THIS SPECIFICATION SHEET, WHEN SHIELDED IN ACCORDANCE WITH M85485/12-**T1*, SHALL MEET THE VOLTAGE WITHSTAND (DIELECTRIC) OF 1500 VOLTS (RMS), 60 HZ, AND THE STOP BAND ATTENUATION REQUIREMENTS FOR THE APPLICABLE SIZE OF WIRE AS SPECIFIED IN TABLE III.