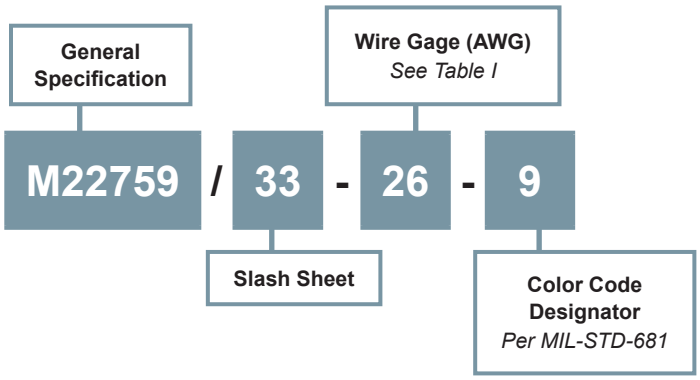
M22759/33
Silver Coated Copper Wire with Crosslinked, Modified ETFE Insulation

SMALL DIAMETER, HIGH-FLEX INSULATION

How To Order



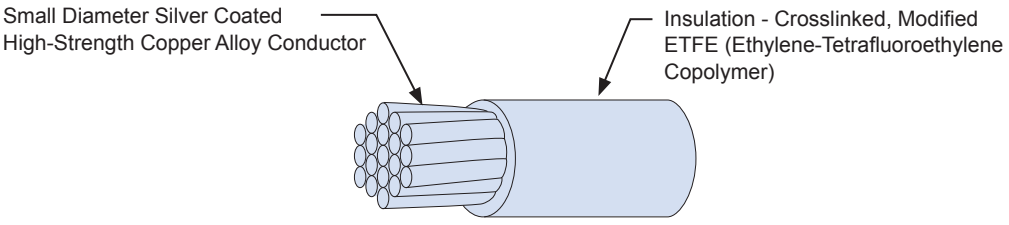


Table I

Part Number	Wire Size (AWG)	Stranding (Number of strands x AWG gage 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
M22759/33-30-*	30	7 x 38	.011	.012	117.4	.024 ± .002	.66
M22759/33-28-*	28	7 x 36	.014	.016	74.4	.027 ± .002	.91
M22759/33-26-*	26	19 x 38	.018	.020	44.8	.032 ± .002	1.4
M22759/33-24-*	24	19 x 36	.023	.025	28.4	.037 ± .002	2.0
M22759/33-22-*	22	19 x 34	.029	.031	17.5	.043 ± .002	2.9
M22759/33-20-*	20	19 x 32	.037	.039	10.7	.050 ± .002	4.4

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Table II: Test Data	
Temperature Rating	200° C (392° F) max conductor temperature
Voltage Rating	600 volts (rms) at sea level
Short Term Thermal Stability	7 hours at 230 ± 2° C (446 ± 3.6° F). Quality conformance test, group II; test procedures and requirements as in life cycle test except for time and temperature of oven exposure.
Spark Test of Primary Insulation	not required
Impulse Dielectric Test	100% test, 8.0 kilovolts (peak)
Insulation Thickness	.005 inch (minimum)
Insulation Resistance, Initial	5,000 megohms for 1000 ft (min)
Physical Properties of Insulation	pulled at 2 inches per minute. tensile strength, 5,000 lbf/in2 (min.) elongation, 75% (min.)
Propellant Resistance	no dielectric breakdown.
Crosslinking Proof Test	7 hours at 300° C ± 3°C (572 ± 5.4° F). Quality conformance test, group II. Requirements and procedures as for life cycle except for time and temperature.
Wrap Test	"wrap back" test required, no cracking. Oven temperature: 313 ± 3°C (595 ± 5.4° F)
Blocking	230 ± 3° C (446 ± 5.4°F)
Shrinkage	0.125 inch max at 200 ± 2° C (392 ± 3.6° F)
Wicking	no requirement
Solderability	all conductors shall be tested in accordance with MIL-STD-202, method 208 without steam aging.
Low Temperature (Cold Bend)	bend temperature: -65° ± 2° C (-85 ± 3.6° F) dielectric test: 2,500 volts (rms), 60 Hz
Thermal Shock	oven temperature: 200 ± 3° C (392 ± 5.4° F) max change in measurement .060 inch
Flammability	quality conformance test, group II.
Life Cycle	500 hours at 230°C ± 3°C (446 ± 5.4° F). Dielectric test, 2,500 volts (rms), 60 Hz. Procedure to use mandrels coated with PTFE in the form of either enamel or wrapped tape, such that the diameter of the mandrels, after coating, still conform to the requirements of performance details.
Dielectric Test After Immersion	2,500 volts (rms), 60 Hz
Acid Resistance	no requirement
Conductor Strand Adhesion Requirements	shall be in accordance with 3.6.11 of MIL-W-22759
Abrasion Resistance After Immersion	no requirement
Humidity Resistance	after humidity exposure, wire shall meet the requirements for initial insulation resistance.
Surface Resistance	500 megohms - inches (min), initial and final readings
Smoke	250° C ± 5°C (482° ± 9°F); no visible smoke.
Color	in accordance with MIL-STD-104, class 1; white preferred. Conformity of color to the limits of MIL-STD-104 shall not be required after crosslinking proof test or life cycle oven exposure.
Color Striping or Banding Durability	125 cycles (250 strokes) minimum, 500 grams weight
Identification of Product	not required for size 24 and smaller. color code designator not required.
Identification Durability	125 cycles (250 strokes) minimum, 500 grams weight
Wire Length Requirements	schedule B

Notes

Cable identified with manufacturer's name and part number.
Cable is sold in 1 foot increments. Specify desired length on purchase order.

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