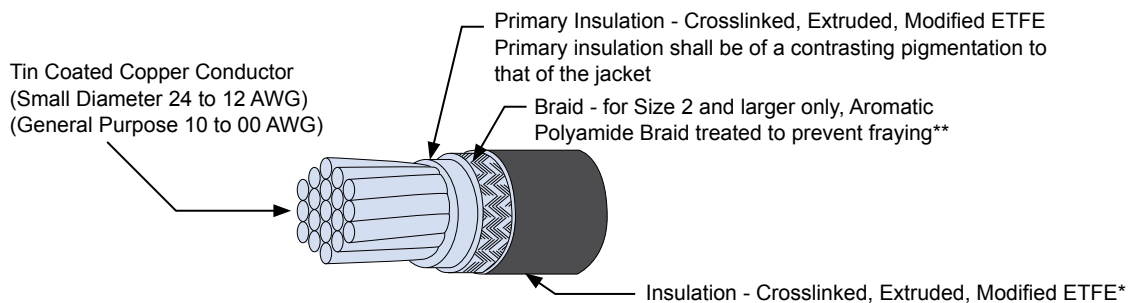
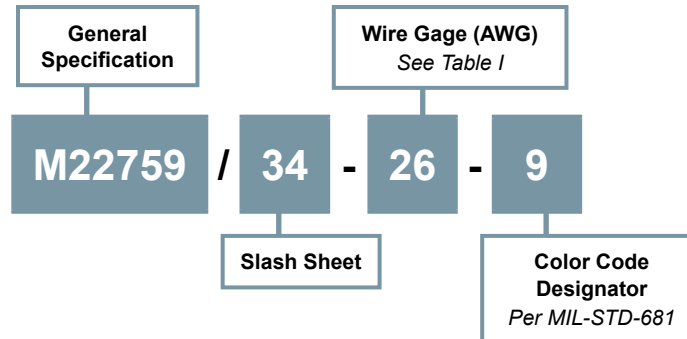


**GENERAL-PURPOSE OR SMALL DIAMETER, EXCELLENT SOLDERABILITY; EMI/RFI SHIELDED**
**How To Order**


\*ETFE - Ethylene-Tetrafluoroethylene Copolymer

\*\*Braid (sizes 2 and larger): 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.

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
M22759/34-24-*	24	19 x 36	.023	.025	26.2	.045 ± .002	2.3
M22759/34-22-*	22	19 x 34	.029	.031	16.2	.050 ± .002	3.2
M22759/34-20-*	20	19 x 32	.037	.039	9.88	.058 ± .002	4.7
M22759/34-18-*	18	19 x 30	.046	.049	6.23	.070 ± .003	7.2
M22759/34-16-*	16	19 x 29	.052	.055	4.81	.077 ± .003	9.0
M22759/34-14-*	14	19 x 27	.065	.069	3.06	.094 ± .003	13.8
M22759/34-12-*	12	37 x 28	.084	.089	2.02	.111 ± .003	20.5
M22759/34-10-*	10	37 x 26	.106	.113	1.26	.134 ± .004	32.4
M22759/34-8-*	8	133 x 29	.158	.173	.701	.195 ± .008	60.3
M22759/34-6-*	6	133 x 27	.198	.217	.445	.241 ± .010	94
M22759/34-4-*	4	133 x 25	.250	.274	.280	.310 ± .010	150
M22759/34-2-*	2	665 x 30	.320	.340	.183	.405 ± .016	239
M22759/34-1-*	1	817 x 30	.360	.380	.149	.445 ± .016	290
M22759/34-0-*	0	1045 x 30	.395	.425	.116	.485 ± .016	377
M22759/34-00-*	00	1330 x 30	.440	.475	.091	.545 ± .016	487

**M22759/34**  
**Tin Coated Copper Wire**  
**with Overall Braid and Extruded ETFE Insulation**



Table II: Test Data	
Temperature Rating	150° C (302° 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	1,500 volts (rms), 60 Hz
Impulse Dielectric Test	100% test, 8.0 kilovolts (peak)
Insulation Thickness	0.003 inch (min) for primary insulation 0.004 inch (min) for outer jacket 0.008 inch (min) for total insulation
Insulation Resistance, Initial	sizes 24 through 10: 5,000 megohms for 1000 ft (min) sizes 8 through 00: 3,000 megohms for 1,000 ft (min)
Physical Properties of Insulation	pulled at 2 inches per minute. tensile strength, 5,000 lb/in <sup>2</sup> (min.) 24-10 AWG: elongation, 125% (min.) 8-00 AWG: 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: 200 ± 3° C (392 ± 5.4° F) sizes and larger, mandrel diameter shall be 3 times the OD of the wire.
Blocking	200 ± 3° C (392 ± 5.4° F)
Shrinkage	0.125 inch max at 200 ± 2° C (392 ± 3.6° F)
Wicking	procedure II; weight increase, no requirement. Dye travel between layers of insulation 2.25 in (max) from end of specimen.
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 Resistance	oven temperature: 150 ± 3° C (302 ± 5.4° F) max change in measurement: 24 AWG through 12 AWG: 0.060 in 10 AWG through 8 AWG: 0.100 in 6 AWG through 00 AWG: 0.125 in
Flammability	quality conformance test, group II.
Life Cycle	500 hours at 200° C ± 3° C (392 ± 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	200° C ± 2° C (392° ± 3.6° F); no visible smoke.
Color	in accordance with MIL-STD-104, class 1; white preferred. For braided constructions, color shall be dark green within Munsell color limits of 5Y 3/2 and 5B 2/0.5. 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