Caledonian

MIL-Spec wire and cable

MIL-W-16878/MIL-W-16878D/MIL-W-81822/MIL-DTL-81381/MIL-W-5086

QQ-W-343/MIL-W-25038/MIL-W-76/MIL-W-8777

Company Profile


ISO 9001
REGISTERED FIRM

Registration Certificate

This document certifies that the administration systems of

Caledonian Cables Limited/Addison Technology Limited
Marchants Industrial Centre, Mill Lane, Laughton, Lewes, Sussex, BN8 6AJ, United Kingdom

have been assessed and approved by QAS International
to the following management systems, standards and guidelines:

ISO 9001 : 2008
With the permitted exclusion of clauses 7.3 Design and Development

The approved administration systems apply to the following:

The manufacture and supply of electrical cables and
ancillary power equipment to customers internationally.

Original Approval 6th September 1997
Current Certificate 7th February 2011
Certificate Expiry 7th February 2012
Certificate Number A6211

On behalf of QAS International
www.qas-international.com

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International.
The holder is entitled to display the above registration mark for the duration of this certificate.
This certificate must be returned to QAS International on reasonable request.
Issuing Office: QAS International, The Gig House, Oxford Street, Malmesbury, Wiltshire, SN16 9AX

Caledonian. established in 1978.offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS-British Standard;LPCB Fire Performance Standard. ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison. produces a wide range of cables for communication. power and electronics in its primary plants in UK. Italy and Spain. To stay in front. we continually keep expanding our manufacturing capabilities in more low cost region such as Romania. Taiwan. Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible. scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing. logistic services. and vertically integrated with our E commerce technologies. to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality. excellent service level. competitive pricing and a unique and innovative spirit. With our latest technologies. we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning. we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized. country and industry specific solutions. Caledonian & Addison has established an extensive network of design. manufacturing. and logistics facilities in the world’s major markets to serve the growing outsourcing needs of both multinational and regional customers.

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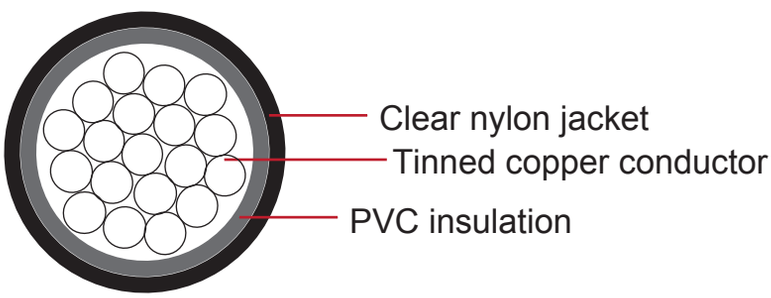
MIL-W-5086 Aircraft Wire

MIL-W-5086/1 Unshielded Aircraft Wire

Application and Description:

These PVC insulated single-core MIL-W-5086/1 wires are used in electrical or electronic applications. These cables should be considered for use in any application where it may be exposed to chemicals, but-through, impact, abrasion, or other abuse. This wire offers excellent resistance to moisture, fuels, hydraulic fluids, and other common industrial solvents.

Construction:



Conductor: Stranded soft annealed tinned copper

Insulation: Polyvinyl chloride (PVC)

Jacket: Clear nylon jacket

Characteristics:

Temperature Rating: 105°C

Voltage Rating: 600 volts

Mil-Spec Wire

Color Code:10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
22	19/34	0.032	0.813	0.068	1.727	4.0
20	19/32	0.041	1.041	0.078	1.981	6.0
18	19/30	0.051	1.295	0.088	2.235	8.3
16	19/29	0.059	1.499	0.098	2.489	10.3
14	19/27	0.072	1.829	0.117	2.972	15.7
12	37/28	0.093	2.362	0.137	3.480	23.7
10	37/26	0.112	2.845	0.159	4.039	35.0

MIL-W-5086/2 Unshielded Aircraft Wire

Application and Description:

These PVC insulated single-core MIL-W-5086/2 wires are used in electrical or electronic applications. These cables should be considered for use in any application where it may be exposed to chemicals, but-through, impact, abrasion, or other abuse. This wire offers excellent resistance to moisture, fuels, hydraulic fluids, and other common industrial solvents.

Construction:

Conductor: Stranded soft annealed tinned copper

Insulation: Polyvinyl chloride (PVC)

Jacket: 22 AWG – 10 AWG: Clear nylon

8 AWG – 4/0 AWG: Impregnated glass braid

Characteristics

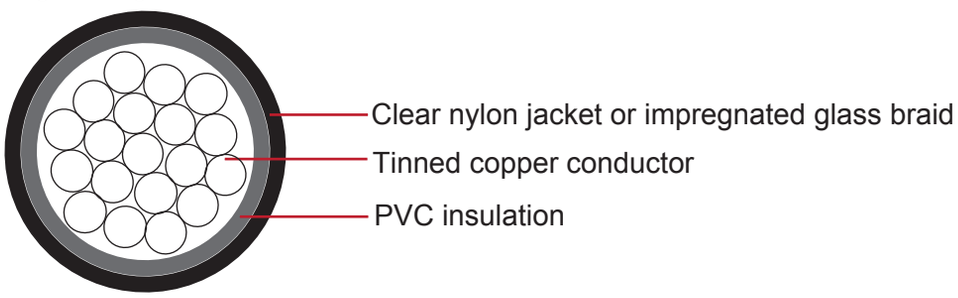
Temperature Rating: 105°C

Voltage Rating: 600 volts

Mil-Spec Wire

Color Code:

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)



Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/ MFT
		in	mm	in	mm	
22	19/34	0.032	0.813	0.073	1.854	4.2
20	19/32	0.041	1.041	0.083	2.108	6.2
18	19/30	0.051	1.295	0.093	2.362	8.6
16	19/29	0.059	1.499	0.103	2.616	10.7
14	19/27	0.072	1.829	0.126	3.200	16.7
12	37/28	0.093	2.362	0.143	3.632	25.0
10	37/26	0.112	2.845	0.189	4.801	40.1
8	133/29	0.169	4.293	0.239	6.071	66.0
6	33/27	0.213	5.410	0.293	7.442	104.6
4	133/25	0.269	6.833	0.349	8.865	160.1
2	665/30	0.327	8.306	0.420	10.668	245.0
1	817/30	0.380	9.652	0.467	11.862	304.0
1/0	1045/30	0.413	10.490	0.525	13.335	392.0
2/0	1330/30	0.475	12.065	0.587	14.910	493.0
3/0	1661/30	0.535	13.589	0.640	16.256	604.0
4/0	2104/30	0.600	15.240	0.725	18.415	770.0

MIL-W-16878(NEMA HP3, HP4) Hook Up Cable

Construction Characteristics – MIL-W-16878 Wires

MIL-W-16878 Slant Sheet	Type	Voltage	Insulation Material	Insulation Wall Thickness	Conductor Plating	Temperature Rating(Max.)
MIL-W-16878/1	B	600	PVC	0.010	Tin	105
MIL-W-16878/2	C	1000	PVC	0.015	Tin	105
MIL-W-16878/3	D	3000	PVC	0.03	Tin	105
MIL-W-16878/4	E	600	PTFE(Extruded)	0.010	Silver	200
MIL-W-16878/5	EE	1000	PTFE(Extruded)	0.015	Silver	200
MIL-W-16878/6	ET	250	PTFE(Extruded)	0.006	Silver	200
MIL-W-16878/11	K	600	FEP(Extruded)	0.010	Silver	200
MIL-W-16878/12	KK	1000	FEP(Extruded)	0.015	Silver	200
MIL-W-16878/13	KT	250	FEP(Extruded)	0.006	Silver	200

Temperature in °C . Wall thickness in inches. All values are nominal unless otherwise indicated.

MIL-W-16878 Part Numbering And Example

MIL-W-16878/5 B C B 903

B Conductor material

Conductor Material	
Letter	**Material**
B	Coated copper
C	Coated copper-clad steel
D	Coated high-strength copper alloy

C Conductor Size

Conductor Size	
Letter	**AWG**
A	32
B	30
C	28
D	26
E	24
F	22
G	20
H	18
J	16
K	14
L	12
M	10
N	8
P	6
R	4
S	2
T	1
U	0
W	2/0
Y	3/0
Z	4/0

B Conductor Stranding

Conductor Stranding	
Letter	**Strands**
A	1
B	7
C	10
D	16
E	19
F	26
G	37
H	41
J	65
K	105
L	133
M	168
N	259
P	665
R	817
S	1045
T	1330
V	1672
W	2109

903 Color code

Insulation color, followed by color for up to two stripes.

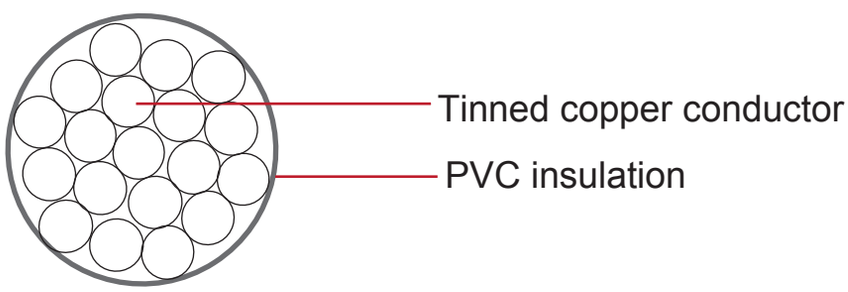
Color Code	
Number	**Color**
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

MIL-W-16878/1 Type B Wire

Application and Description:

These PVC insulated single-core MIL-W-16878/1 (Type B) wires are used in electrical and electronic applications, military and aerospace industries. It is flame and chemical resistant and resist to water, oil, acids, solvents and fungus.

Construction:



Conductor: Stranded Tinned Copper

Insulation: Polyvinylchloride (PVC)

Insulation Wall Thickness: 0.010”

Characteristics:

Temperature Range: -55°C to +105°C

Voltage Rating: 600 Volts

MIL-W-16878/1(Type B)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

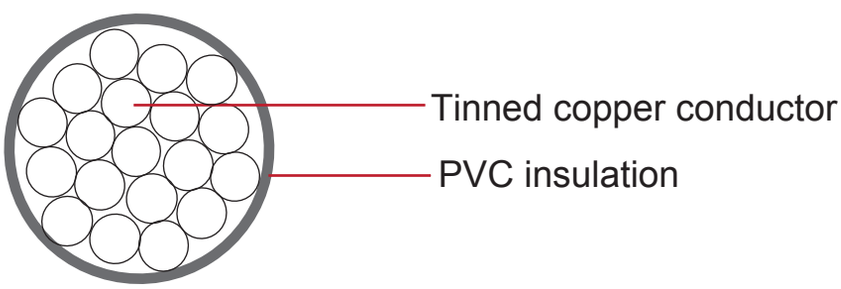
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/ MFT
		in	mm	in	mm	
32	1/32	0.008	0.203	0.030	0.711	1.0
32	7/40	0.009	0.229	0.030	0.737	1.0
30	1/30	0.010	0.254	0.032	0.762	1.0
30	7/38	0.012	0.305	0.034	0.813	1.0
28	1/28	0.013	0.320	0.035	0.838	1.0
28	7/36	0.015	0.381	0.037	0.889	1.0
26	1/26	0.016	0.404	0.038	0.914	2.0
26	7/34	0.019	0.483	0.041	0.991	2.0
26	19/38	0.019	0.483	0.041	0.991	2.0
24	1/24	0.020	0.511	0.043	1.020	2.0
24	7/32	0.024	0.610	0.047	1.120	2.0
24	19/36	0.024	0.610	0.047	1.120	2.0
22	1/22	0.025	0.640	0.048	1.170	3.0
22	7/30	0.030	0.760	0.053	1.270	3.0
22	19/34	0.030	0.760	0.053	1.270	3.0
20	1/20	0.032	0.810	0.055	1.320	5.0
20	7/28	0.038	0.960	0.061	1.470	5.0
20	19/32	0.038	0.960	0.061	1.470	5.0
18	7/26	0.048	1.220	0.072	1.730	7.0
18	19/30	0.048	1.220	0.072	1.730	7.0
18	1/18	0.043	1.020	0.600	1.520	5.7
16	1/16	0.051	1.290	0.075	1.800	9.0
16	19/29	0.054	1.370	0.083	1.960	9.0
14	19/27	0.069	1.750	0.091	2.310	14.0
14	1/14	0.064	1.630	0.084	2.130	14.8

MIL-W-16878/2 Type C Wire

Application and Description:

These PVC insulated single-core MIL-W-16878/2 (Type C) wires are used in electrical and electronic applications, internal wiring of meters and panels, military and aerospace industries. It is also resist to water, oil, acids, solvents and fungus.

Construction:



Conductor: Tinned copper, solid or stranded

Insulation: Polyvinylchloride (PVC)

Insulation Wall Thickness: 0.015”

Characteristics:

Temperature Range: -55°C to 105°C

Voltage Rating: 1000 volts

MIL-W-16878/2(Type C)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

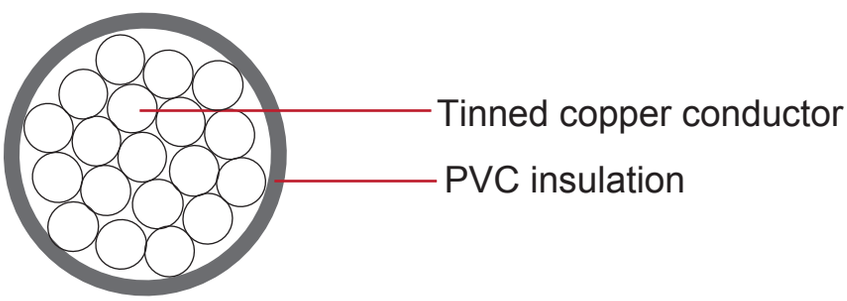
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
26	Solid	0.016	0.404	0.054	1.270	2.0
26	7/34	0.019	0.483	0.057	1.350	2.0
26	19/38	0.019	0.483	0.057	1.350	2.0
24	Solid	0.020	0.511	0.058	1.970	3.0
24	7/32	0.024	0.610	0.062	1.470	3.0
24	19/36	0.025	0.635	0.062	1.500	3.0
22	Solid	0.025	0.643	0.064	1.500	4.0
22	7/30	0.030	0.762	0.068	1.630	4.0
22	19/34	0.030	0.762	0.068	1.630	4.0
20	Solid	0.032	0.813	0.070	1.680	5.0
20	7/28	0.380	0.965	0.076	1.830	5.0
20	10/30	0.380	0.965	0.076	1.830	5.0
20	19/32	0.380	0.695	0.076	1.830	5.0
18	Solid	0.403	1.020	0.079	1.910	8.0
18	7/26	0.480	1.220	0.087	2.080	8.0
18	19/30	0.480	1.220	0.087	2.080	8.0
16	Solid	0.508	1.290	0.089	2.16	11.0
16	19/29	0.540	1.370	0.097	2.310	11.0
16	26/30	0.055	1.400	0.100	2.390	11.0
14	Solid	0.641	1.630	0.102	2.490	15.0
14	19/27	0.690	1.750	0.105	2.670	15.0
14	41/30	0.071	1.800	0.118	2.840	18.0
12	19/25	0.089	2.260	0.129	3.150	23.0
12	37/28	0.089	2.260	0.127	3.350	23.0

MIL-W-16878/3 Type D Wire

Application and Description:

These PVC insulated single-core MIL-W-16878/3 (Type D) wires are used in electrical and electronic applications, military and aerospace industries. May be used for the internal wiring of electronic equipment, It is flame and chemical resistant. It is also resist to water, oil, acids, solvents and fungus.

Construction:



Conductor: Stranded, tinned copper conductor

Insulation: Polyvinylchloride (PVC)

Insulation Wall Thickness: 0.03”

Characteristics:

Temperature Range: -55°C to 105°C

Voltage Rating: 3000 volts

MIL-W-16878/3(Type D)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

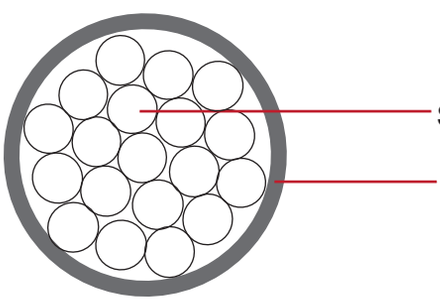
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
24	1/24	0.020	0.511	0.082	2.080	4.2
24	7/32	0.024	0.610	0.082	2.180	5.0
24	19/36	0.024	0.610	0.082	2.180	5.0
22	7/30	0.030	0.762	0.089	2.340	6.0
22	19/34	0.030	0.762	0.089	2.340	6.0
22	1/22	0.030	0.762	0.092	2.340	5.0
20	7/28	0.038	0.965	0.097	2.540	8.0
20	19/32	0.038	0.965	0.097	2.540	8.0
18	7/26	0.048	1.220	0.107	2.790	10.0
18	19/30	0.048	1.220	0.107	2.790	10.0
18	1/18	0.403	1.020	0.102	2.590	9.3
16	26/30	0.055	1.400	0.116	2.970	13.0
16	1/16	0.051	1.290	0.113	2.870	12.6
14	19/27	0.069	1.750	0.130	3.330	18.0
14	1/14	0.064	1.630	0.126	3.200	16.9
14	41/30	0.071	1.800	0.134	3.400	17.9
12	19/25	0.089	2.260	0.162	4.090	29.0
12	37/28	0.089	2.260	0.156	3.960	28.9
12	65/30	0.089	2.260	0.165	4.190	28.5
10	37/26	0.107	2.720	0.190	4.520	40.0
8	133/29	0.167	1.240	0.245	6.200	68.0
6	133/27	0.210	5.330	0.295	7.370	101.0
4	133/25	0.266	6.760	0.351	8.920	154.0
2	665/30	0.342	6.760	0.425	10.800	231.0
1	817/30	0.382	9.700	0.475	12.070	284.0
1/0	1045/30	0.431	10.950	0.530	13.460	361.0

MIL-W-16878/4 Type E Wire

Application and Description:

These PTFE insulated single-core MIL-W-16878/4 (Type E) wires are used in military harnessing, power supply lead wire, appliance wiring and medical electronics, The MIL Spec wire has excellent resistance to thermal aging, solder iron damage, flame, and moisture. PTFE also resists solvents, greases, ozone and most other chemicals. The PTFE insulation has a great flex-life and is suitable for a wide frequency range. Compared with other insulations, PTFE saves space and weight and is easy to install.

Construction:



Conductor: Stranded or solid silver plated copper

Insulation: Extruded PTFE

Insulation Wall Thickness: 0.010”

Characteristics:

Temperature Range: -65°C to 200°C

Voltage Rating: 600 volts

MIL-W-16878/4(Type E)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

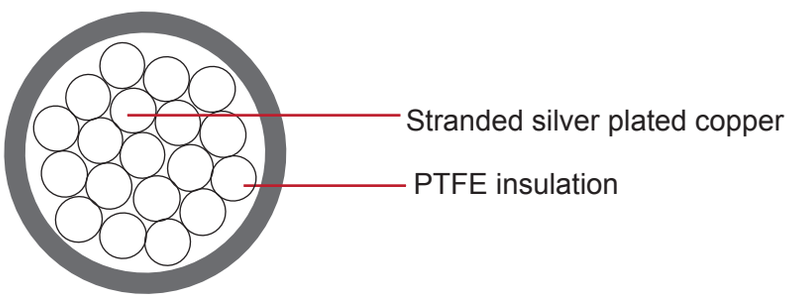
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/ MFT
		in	mm	in	mm	
32	7/40	0.009	0.230	0.030	0.800	1.0
30	Solid	0.010	0.254	0.030	0.800	1.0
30	7/38	0.012	0.310	0.032	0.800	1.0
28	Solid	0.013	0.330	0.033	0.800	2.0
28	7/36	0.015	0.380	0.035	0.900	2.0
28	19/40	0.150	0.380	0.039	1.000	2.0
26	Solid	0.016	0.410	0.036	0.900	2.0
26	7/34	0.019	0.480	0.040	1.000	2.0
26	19/38	0.019	0.480	0.039	1.000	2.0
24	Solid	0.020	0.510	0.040	1.000	3.0
24	7/32	0.024	0.610	0.044	1.100	3.0
24	19/36	0.024	0.610	0.045	1.100	3.0
22	Solid	0.025	0.640	0.045	1.100	4.0
22	7/30	0.030	0.760	0.050	1.300	4.0
22	19/34	0.030	0.760	0.051	1.300	4.0
20	Solid	0.032	0.810	0.052	1.300	5.0
20	7/28	0.038	0.970	0.058	1.500	5.0
20	19/32	0.038	0.970	0.058	1.500	6.0
18	Solid	0.040	1.020	0.060	1.500	8.0
18	7/26	0.048	1.220	0.069	1.800	8.0
18	19/30	0.047	1.190	0.069	1.800	8.0
16	19/29	0.053	1.350	0.080	2.000	10.0
14	19/27	0.067	1.700	0.095	2.400	15.0
12	19/25	0.084	2.130	0.114	2.900	23.0
10	37/26	0.108	2.740	0.134	3.400	35.0

MIL-W-16878/5 Type EE Wire

Application and Description:

These PTFE insulated single-core MIL-W-16878/5 (Type EE) wires are used in military harnessing, power supply lead wire, appliance wiring and medical electronics, The MIL Spec wire has excellent resistance to thermal aging, solder iron damage, flame, and moisture. PTFE also resists solvents, greases, ozone and most other chemicals. The heavy wall PTFE insulation has a great flex-life and is suitable for a wide frequency range. Compared with other insulations, PTFE saves space and weight and is easy to install.

Construction:



Conductor: Stranded silver plated copper

Insulation: Extruded PTFE

Insulation Wall Thickness: 0.015”

Characteristics:

Temperature Range: -60°C to 200°C

Voltage Rating: 1000 volts

MIL-W-16878/5(Type EE)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

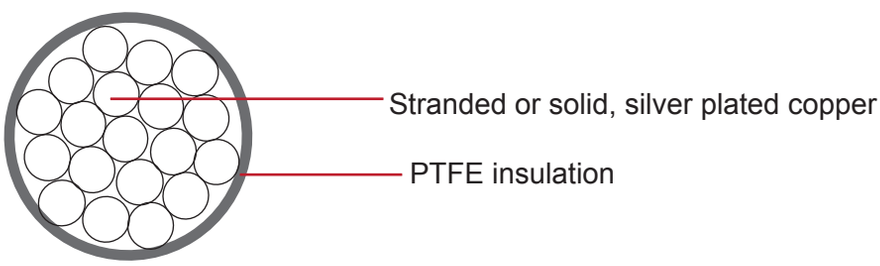
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
30	1/30	0.010	0.300	0.040	1.000	1.6
30	7/38	0.012	0.300	0.042	1.100	1.6
30	19/42	0.012	0.300	0.042	1.100	1.6
28	1/28	0.013	0.300	0.043	1.100	1.7
28	7/36	0.015	0.400	0.045	1.100	1.9
28	19/40	0.015	0.400	0.045	1.100	1.9
26	1/26	0.016	0.400	0.046	1.200	2.2
26	7/34	0.019	0.500	0.049	1.200	2.4
26	19/38	0.019	0.500	0.049	1.200	2.5
24	7/32	0.024	0.600	0.052	1.300	3.1
24	19/36	0.024	0.600	0.052	1.300	3.1
22	7/30	0.030	0.800	0.058	1.500	4.1
22	19/34	0.030	0.800	0.058	1.500	4.3
20	7/28	0.038	1.000	0.066	1.700	5.8
20	19/32	0.038	1.000	0.066	1.700	6.0
18	7/26	0.048	1.200	0.076	1.900	8.4
18	19/30	0.047	1.200	0.076	1.900	8.7
16	19/29	0.053	1.300	0.085	2.200	11.0
14	19/27	0.067	1.700	0.100	2.500	16.5
12	19/25	0.084	2.100	0.120	3.000	24.6
10	37/26	0.108	2.700	0.143	3.600	36.6

MIL-W-16878/6 Type ET Wire

Application and Description:

These PTFE insulated single-core MIL-W-16878/6 (Type ET) wires are used for MIL-Spec, power supply lead wire, appliance wiring and medical electronics. The thin wall PTFE insulation offers high reliability and excellent thermal stability. It resists chemicals, ultra-violet radiation, and mold growth and is non-toxic and safe for the environment. The MIL Spec wire has excellent resistance to thermal aging, solder iron damage, flame, and moisture. PTFE also resists solvents, greases, ozone and most other chemicals. These wires are easy to install due to their small size and slippery surface.

Construction:



Conductor: Stranded or solid, silver plated copper

Insulation: Extruded PTFE

Insulation Wall Thickness: 0.006”

Characteristics:

Temperature Range: -60°C to 200°C

Voltage Rating: 250 volts

MIL-W-16878/6(Type ET)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

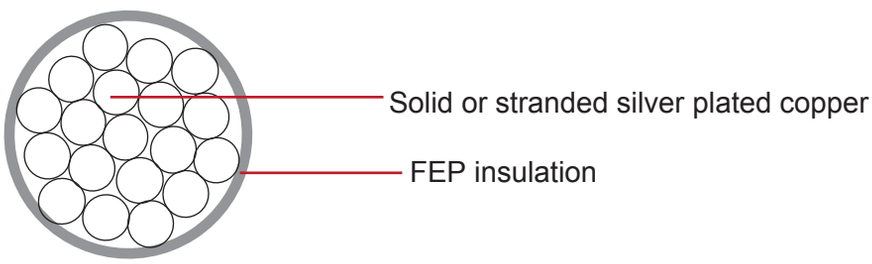
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
32	7/40	0.090	0.230	0.021	0.500	0.5
30	Solid	0.010	0.254	0.022	0.600	0.6
30	7/38	0.012	0.310	0.024	0.600	0.7
28	Solid	0.013	0.330	0.025	0.600	0.8
28	7/36	0.015	0.380	0.027	0.700	1.0
28	19/40	0.150	0.380	0.027	0.700	1.0
26	Solid	0.016	0.410	0.028	0.700	1.2
26	19/38	0.019	0.480	0.031	0.800	1.4
26	7/34	0.019	0.480	0.031	0.800	1.3
24	Solid	0.020	0.500	0.032	0.800	1.9
24	7/32	0.024	0.610	0.036	0.900	1.9
24	19/36	0.024	0.610	0.036	0.900	2.0
22	7/30	0.030	0.760	0.042	1.100	2.9
20	7/28	0.038	0.970	0.046	1.200	4.3
20	19/32	0.038	0.970	0.046	1.200	4.7

MIL-W-16878/11 Type K Wire

Application and Description:

These FEP insulated single-core MIL-W-16878/11 (Type K) wires are used in electronic equipment, motor leads and computer back panels.

Construction:



Conductor: Solid or stranded silver plated copper

(These wires also have tin-plated copper conductors for economy)

Insulation: Extruded FEP

Insulation Wall Thickness: 0.010”

Characteristics:

Temperature Range: -55°C to +200°C

Voltage Rating: 600 volts

MIL-W-16878/11(Type K)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

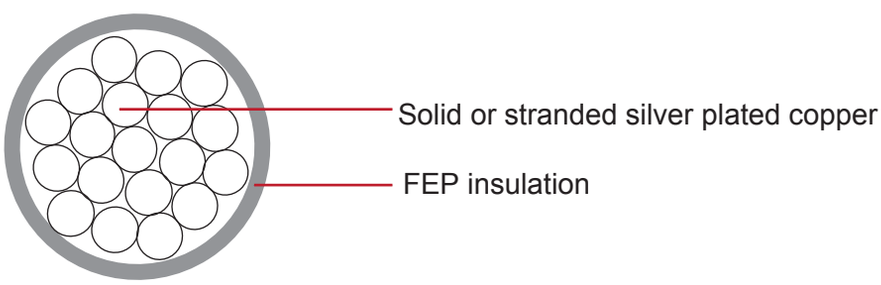
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
32	7/40	0.009	0.229	0.029	0.737	1.0
32	19/44	0.010	0.254	0.030	0.762	1.0
30	Solid	0.010	0.254	0.030	0.762	1.0
30	7/38	0.012	0.305	0.032	0.813	1.0
30	16/42	0.012	0.305	0.032	0.813	1.0
28	Solid	0.013	0.330	0.033	0.838	2.0
28	7/36	0.015	0.381	0.035	0.889	2.0
28	19/40	0.015	0.381	0.035	0.889	2.0
26	Solid	0.016	0.406	0.036	0.914	2.0
26	7/34	0.019	0.483	0.039	0.991	2.0
26	19/38	0.019	0.483	0.039	0.991	2.0
24	Solid	0.020	0.508	0.040	1.016	3.0
24	7/32	0.024	0.610	0.044	1.118	3.0
24	19/36	0.024	0.610	0.044	1.118	3.0
22	Solid	0.025	0.635	0.045	1.143	4.0
22	7/30	0.030	0.762	0.050	1.270	4.0
22	19/34	0.030	0.762	0.050	1.270	4.0
20	Solid	0.032	0.813	0.050	1.270	5.0
20	7/28	0.036	0.914	0.058	1.473	5.0
20	19/32	0.038	0.965	0.058	1.473	5.0
18	7/26	0.048	1.219	0.069	1.753	8.0
18	19/30	0.047	1.194	0.069	1.753	8.0
16	19/29	0.053	1.346	0.080	2.032	10.0
14	19/27	0.067	1.702	0.094	2.388	15.0
12	19/25	0.084	2.134	0.113	2.870	23.0
10	37/26	0.110	2.794	0.132	3.353	35.0
8	133/29	0.162	4.115	0.190	4.826	60.0

MIL-W-16878/12 Type KK Wire

Application and Description:

These FEP insulated single-core MIL-W-16878/12 (Type KK) wires are used in electronic equipment, motor leads and computer back panels

Construction:



Conductor: Solid or stranded silver plated copper

(These wires also have tin- plated copper conductors for economy)

Insulation: Extruded FEP

Insulation Wall Thickness: 0.015”

Characteristics:

Temperature Range: -60°C to +200°C

Voltage Rating: 1000 volts

MIL-W-16878/12(Type KK)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

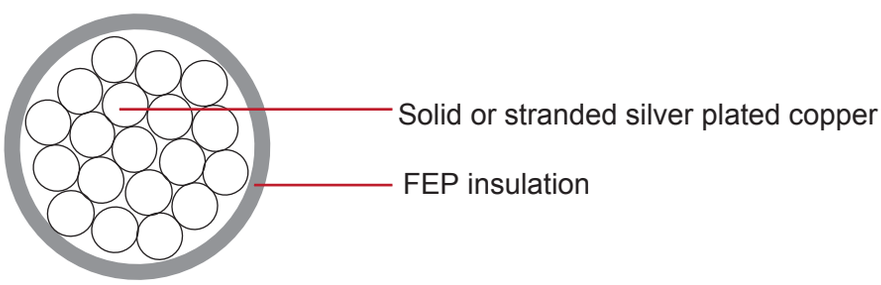
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
32	7/40	0.009	0.229	0.038	0.965	1.3
32	19/44	0.010	0.254	0.038	0.965	1.3
30	7/38	0.012	0.305	0.042	1.067	1.5
30	19/42	0.012	0.305	0.042	1.067	1.6
28	7/36	0.015	0.381	0.045	1.143	1.9
28	19/40	0.015	0.381	0.045	1.143	2.0
26	7/34	0.019	0.483	0.049	1.245	2.4
26	19/38	0.019	0.483	0.054	1.372	2.5
24	7/32	0.024	0.610	0.054	1.372	3.1
24	19/36	0.024	0.610	0.054	1.372	3.2
22	7/30	0.030	0.762	0.060	1.524	4.2
22	19/34	0.030	0.762	0.060	1.524	4.4
20	7/28	0.038	0.965	0.068	1.727	5.8
20	19/32	0.038	1.219	0.068	1.727	6.2
18	7/26	0.048	1.194	0.079	2.007	8.3
18	19/30	0.047	1.346	0.079	2.007	8.5
16	19/29	0.053	1.702	0.089	2.261	11.0
14	19/27	0.067	2.134	0.105	2.667	16.3
12	19/25	0.084	2.819	0.124	3.150	24.7
10	37/26	0.111	4.115	0.145	3.683	36.7
8	133/29	0.162	5.258	0.207	5.258	63.1
6	133/27	0.207	6.502	0.291	7.391	115.0
4	133/25	0.256	8.382	0.356	9.042	178.0
2	655/30	0.330	8.4	0.405	10.287	268.0

MIL-W-16878/13 Type KT Wire

Application and Description:

These FEP insulated single-core MIL-W-16878/13 (Type KT) wires are used in electronic equipment, computer back panels and in places where fire hazards are a problem.

Construction:



Conductor: Solid or stranded silver plated copper

(These wires also have tin- plated copper conductors for economy)

Insulation: Extruded FEP

Insulation Wall Thickness: 0.006”

Characteristics:

Temperature Range: -55°C to +200°C

Voltage Rating: 250 volts

MIL-W-16878/13(Type KT)

Color Code: MIL-STD-104 (See page 12)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
36	7/44	0.006	0.152	0.018	0.457	0.3
34	Solid	0.006	0.152	0.018	0.457	0.3
34	7/42	0.008	0.203	0.020	0.508	0.4
32	Solid	0.008	0.203	0.020	0.508	0.5
32	7/40	0.009	0.229	0.022	0.559	0.5
32	19/44	0.010	0.254	0.022	0.559	0.5
30	Solid	0.010	0.254	0.022	0.559	0.6
30	7/38	0.012	0.305	0.024	0.610	0.7
30	19/42	0.012	0.305	0.024	0.610	0.7
28	Solid	0.013	0.330	0.025	0.635	0.8
28	7/36	0.015	0.381	0.027	0.686	0.9
28	19/40	0.015	0.381	0.027	0.686	1.0
26	Solid	0.016	0.406	0.028	0.711	1.2
26	7/34	0.019	0.483	0.031	0.787	1.3
26	19/36	0.019	0.483	0.031	0.787	1.4
24	7/32	0.024	0.610	0.036	0.914	1.9
24	19/36	0.024	0.610	0.036	0.914	2.0
22	7/30	0.030	0.762	0.042	1.067	2.9
22	19/34	0.030	0.762	0.042	1.067	3.0
20	7/28	0.038	0.965	0.050	1.270	4.5
20	19/32	0.038	0.965	0.050	1.270	4.6

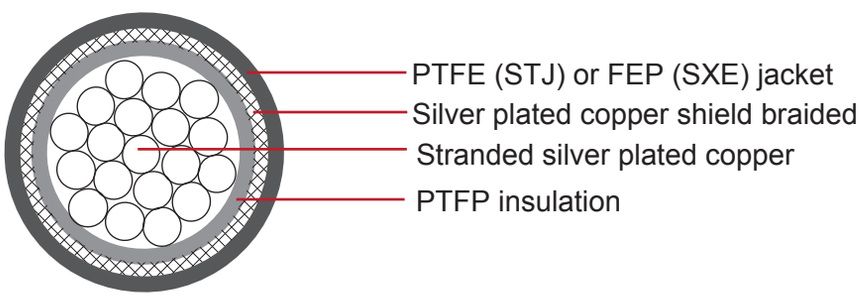
M16878D Shielded PTFE Cable

STJ(SEX) Cables – PTFE(FEP) Tape Jacket Over Shield

Application and Description:

These PTFE insulated MIL-W-16878D shielded PTFE cables are used in electronic equipment. This cables are resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

Construction:



Conductor: stranded silver plated copper.

(also available nickel plated copper)

Insulation: Type E extruded PTFE

Insulation Wall Thickness: 0.006”

Standard Color Code: 1: White; 2: Black; 3: Red; 4: Green; 5:Yellow; 6:Blue

Shield: Braided silver plated copper shield (85% Coverage)

Jacket: Tape wrapped PTFE (STJ) or Extruded FEP (SXE) Jacket (White preferred)

Characteristics:

Temperature Range: -65°C to +200°C

(Nickel-plated conductors PTFE jacket: 260°C)

(Nickel-plated conductors FEP jacket: 200°C)

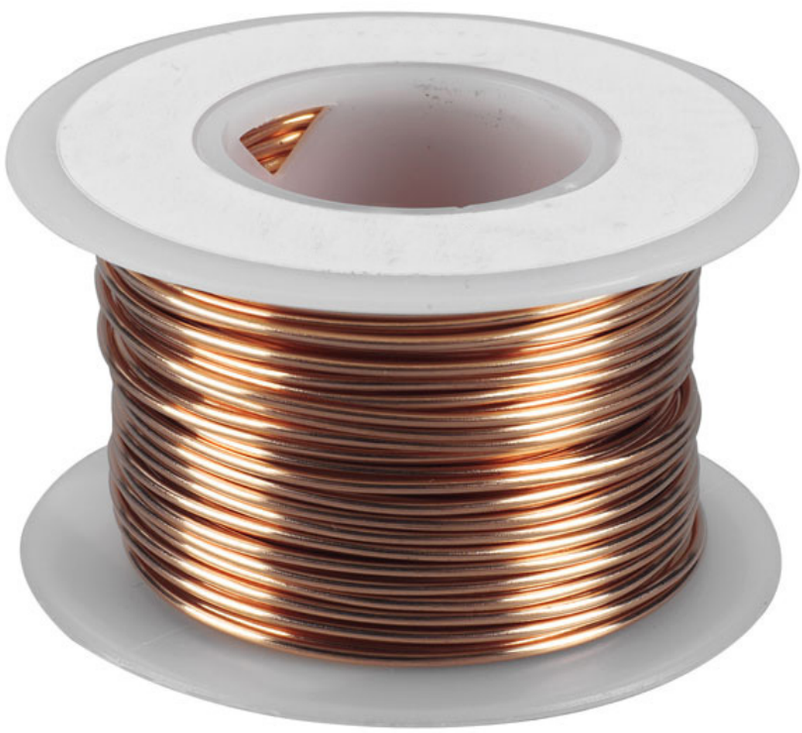
Voltage Rating: 600 volts

Caledonian Military Cables

Dimensions and Weight:

No. of Cond.	AWG Size	Conductor Stranding	Shield Diam.		Nom. O.D.		Approx LBS/MFT
			in	mm	in	mm	
1	26	19/38	0.052	1.321	0.076	1.930	6.0
2	26	19/38	0.099	2.515	0.121	3.073	10.0
3	26	19/38	0.105	2.667	0.127	3.226	13.0
4	26	19/38	0.115	2.921	0.137	3.480	16.0
1	24	19/36	0.066	1.676	0.085	2.159	7.0
2	24	19/36	0.109	2.769	0.128	3.251	13.0
3	24	19/36	0.115	2.921	0.134	3.404	16.0
4	24	19/36	0.127	3.226	0.144	3.658	19.0
1	22	19/34	0.072	1.829	0.090	2.286	10.0
2	22	19/34	0.121	3.073	0.141	3.581	15.0
3	22	19/34	0.146	3.708	0.143	3.632	20.0
4	22	19/34	0.141	3.581	0.159	4.039	25.0
1	20	19/32	0.080	2.032	0.098	2.489	11.0
2	20	19/32	0.137	3.480	0.158	4.013	20.0
3	20	19/32	0.146	3.708	0.164	4.166	27.0
4	20	19/32	0.160	4.064	0.181	4.597	35.0
1	18	19/30	0.090	2.286	0.109	2.769	15.0
2	18	19/30	0.157	3.988	0.176	4.470	28.0
3	18	19/30	0.167	4.242	0.188	4.775	38.0
4	18	19/30	0.184	4.674	0.207	5.258	47.0
1	16	19/29	0.100	2.540	0.117	2.972	17.0
2	16	19/29	0.177	4.496	0.192	4.877	33.0
3	16	19/29	0.189	4.801	0.202	5.131	46.0
4	16	19/29	0.209	5.309	0.224	5.690	59.0
1	14	19/27	0.115	2.921	0.131	3.327	23.0
2	14	19/27	0.207	5.258	0.221	5.613	45.0
3	14	19/27	0.221	5.613	0.237	6.020	62.0
4	14	19/27	0.250	6.350	0.263	6.680	79.0
1	12	19/25	0.125	3.175	0.151	3.835	33.0
2	12	19/25	0.227	5.766	0.262	6.655	68.0
3	12	19/25	0.247	6.274	0.273	6.934	94.0
4	12	19/25	0.274	6.960	0.302	7.671	122.0
1	10	37/26	0.161	4.089	0.185	4.699	51.1
2	10	37/26	0.299	7.595	0.329	8.357	98.0
3	10	37/26	0.325	8.255	0.357	9.068	140.0
4	10	37/26	0.361	9.169	0.393	9.982	180.0

QQ-W-343 Electrical Wire



THINNED COPPER BUSS BAR AND BUSS WIRE: FORMERLY QQ-W-343: AA59551

Application:

These single-core QQ-W-343 Cables are used for the winding of coils, for antennas, for component leads, for point to point wiring, and for ground wire applications.

Description:

This wire is composed of pure electrolytic soft drawn, solid copper properly annealed and tinned for quick soldering.

AWG Size	Nom. O.D.		Nom. Circular Area (Mils)	Approx LBS/MFT
	in	mm		
36	0.005	0.127	25	1
34	0.006	0.152	40	1
32	0.008	0.203	63	1
30	0.010	0.254	101	1
28	0.013	0.330	160	1
26	0.016	0.406	254	1
24	0.020	0.508	404	2
22	0.025	0.635	642	2
20	0.033	0.838	1022	3
18	0.040	1.016	1642	5
16	0.051	1.295	2583	8
14	0.065	1.651	4107	13
12	0.082	2.083	6530	20
10	0.102	2.591	10380	31
8	0.129	3.277	16510	50
6	0.162	4.115	26244	80

MIL-W-25038 High Temperature Wire

MIL-W-25038/1

Application and Description:

These Composite Inorganic Dielectric insulated single-core MIL-W-25038/1 cables are used for critical circuit applications where wires must operate in extremely harsh environments, under vibration, and with direct flame exposure. This heavy-duty, non-asbestos construction offers excellent mechanical performance and abrasion resistance.

Construction:

Conductor: Stranded 27% nickel coated copper conductor

Insulation: Composite Inorganic Dielectric Insulation

Jacket: Polytetrafluoroethylene (PTFE) coated fiberglass braid jacket

Identification: Surface printed per MIL-W-25038

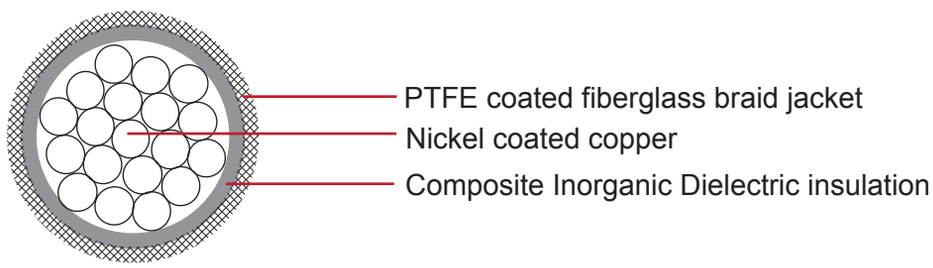
Characteristics:

Temperature Range:

-55°C +260°C

Voltage Rating: 600 volts

Color coded: MIL-STD-104



Dimensions and Weight:

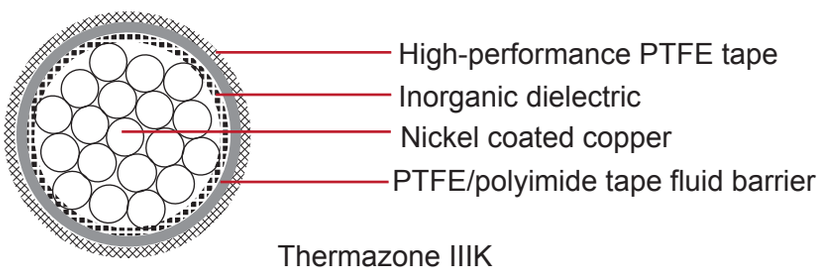
AWG Size	Conductor Stranding	Conductor Diam.		Max. O.D.		Min. O.D.		Max. Resistance @ 20°C OHMS/ MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
22	19/34	0.031	0.790	0.116	2.946	0.100	2.540	23.700	10.0
20	19/32	0.040	1.020	0.125	3.175	0.109	2.769	14.600	12.0
18	19/30	0.050	1.270	0.135	3.429	0.119	3.023	9.400	15.0
16	19/29	0.056	1.420	0.147	3.734	0.127	3.226	6.850	19.0
14	19/27	0.072	1.830	0.170	4.318	0.150	3.810	4.320	25.0
12	19/25	0.090	2.290	0.185	4.699	0.165	4.191	2.780	35.0
10	49/27	0.122	3.099	0.230	5.842	0.210	5.334	1.680	55.0
8	133/29	0.190	4.039	0.280	7.112	0.256	6.502	0.936	85.0
6	133/27	0.200	5.080	0.342	8.687	0.318	8.077	0.591	127.0
4	133/25	0.253	6.426	0.407	10.338	0.383	9.728	0.375	192.0
2	665/30	0.315	8.001	0.484	12.294	0.460	11.684	0.241	291.0
1	817/30	0.350	8.890	0.533	13.538	0.497	12.624	0.196	347.0
1/0	1035/30	0.395	10.033	0.573	14.554	0.537	13.640	0.153	415.0
2/0	1330/30	0.446	11.328	0.635	16.129	0.595	15.113	0.120	520.0
3/0	1672/30	0.505	12.827	0.700	17.780	0.660	16.764	0.096	648.0
4/0	2109/30	0.562	14.275	0.770	19.558	0.730	18.542	0.077	793.0

MIL-W-25038/3

Application and Description:

These PTFE insulated single-core MIL-W-25038/3 cables are used in such aerospace applications as engine compartments, fire detection circuits, flight-critical circuits, and fly-by-wire systems. MIL-W-25038/3 (Thermazone IIIK) wires are designed for critical circuit applications where wires must operate in extremely harsh environments, under vibration, and with direct flame exposure. MIL-W-25038/3(Thermazone IIIG) wires also meet or exceed the requirements of MIL-W-25083/3, but provide this performance at a lower cost through the use of an innovative insulation system.

Construction:



Thermazone IIIK

Conductor: 12-18 AWG: Stranded 27% Nickel coated copper conductor

20-22 AWG: Stranded 27% Nickel coated high-strength copper alloy conductor

Insulation:

Thermazone IIIK:

Outer: PTFE/polyimide tape fluid barrier.

Inner: Inorganic dielectric

Thermazone IIIG:

Outer: PTFE-coated fiberglass fluid barrier.

Inner: Inorganic dielectric

Jacket: Fused High-Performance Polytetrafluoroethylene (PTFE) Tape Jacket

Identification: Surface printed per MIL-W-25038

Characteristics:

Temperature Range: -55°C +260°C

Voltage Rating: 600 volts

Color coded: MIL-STD-104

Dimensions and Weight:

	M25038/3 Thermazone IIIK								
AWG Size	Conductor Stranding	Conductor Diam.		Max. O.D.		Min. O.D.		Max. Resistance @ 20°C OHMS/ MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
22	19/34	0.031	0.787	0.054	1.372	0.040	1.016	23.700	4.2
20	19/32	0.040	1.016	0.083	2.108	0.048	1.219	15.300	9.00
18	19/30	0.050	1.270	0.097	2.464	0.065	1.651	8.500	10.5
16	19/29	0.056	1.422	0.103	2.616	0.068	1.727	6.660	13.5
14	19/27	0.072	1.829	0.123	3.124	0.097	2.464	4.320	19.5
12	19/25	0.090	2.286	0.142	3.607	0.100	2.540	2.780	28.0
	M25038/3 Thermazone IIIG								
AWG Size	Conductor Stranding	Conductor Diam.		Max. O.D.		Min. O.D.		Max. Resistance @ 20°C OHMS/ MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
22	19/34	0.031	0.787	0.075	1.905	0.055	1.397	23.700	4.2
20	19/32	0.040	1.016	0.083	2.108	0.048	1.219	15.300	9.0
18	19/30	0.050	1.270	0.097	2.464	0.065	1.651	8.500	10.5
16	19/29	0.056	1.422	0.103	2.616	0.068	1.727	6.660	13.5
14	19/27	0.072	1.829	0.123	3.124	0.097	2.464	4.320	19.5
12	19/25	0.090	2.286	0.142	3.607	0.100	2.540	2.780	28.0

MIL-DTL-81381

Construction Characteristics ------ MIL-DTL-81381

MIL-DTL-81381 Specification	Insulation Material (Wall Thickness)	Conductor Material	Temperature Rating
M81381/7	FEP/Polyimide/FEP tape with polyimide coating(0.0065″)	SPC	200
M81381/8	FEP/Polyimide/FEP tape with polyimide coating(0.0065″)	NPC	200
M81381/9	FEP/Polyimide/FEP tape with polyimide coating(0.0065″)	SPCA	200
M81381/10	FEP/Polyimide/FEP tape with polyimide coating(0.0065″)	NPCA	200
M81381/11	FEP/Polyimide/FEP tape with polyimide coating(10 AWG and small), or polyamide braid(8 AWG and larger) (0.0085″ or 0.0170″)	SPC	200
M81381/12	FEP/Polyimide/FEP tape with polyimide coating(10 AWG and small), or polyamide braid(8 AWG and larger) (0.0084″ or 0.0154″)	NPC	200
M81381/13	FEP/Polyimide/FEP tape with polyimide coating(0.0095″)	SPCA	200
M81381/14	FEP/Polyimide/FEP tape with polyimide coating(0.0095″)	NPCA	200
M81381/17	FEP/Polyimide/FEP tape with polyimide coating(0.0050″)	SPC	200
M81381/18	FEP/Polyimide/FEP tape with polyimide coating(0.0050″)	NPC	200
M81381/19	FEP/Polyimide/FEP tape with polyimide coating(0.0050″)	SPCA	200
M81381/20	FEP/Polyimide/FEP tape with polyimide coating(0.0050″)	NPCA	200
M81381/21	FEP/Polyimide/FEP tape with polyimide coating(0.0065″)	TPC	150
M81381/22	FEP/Polyimide/FEP tape with polyimide coating(10 AWG and small), or polyamide braid(8 AWG and larger) (0.0085″ or 0.0170″)	TPC	150

Temperatures are maximum in °C. All Values are nominal unless otherwiseindicated.

Materials abbreviations: NPC: Nickel-plated copper.

NPCA: Nickel-plated high-strength copper alloy.

SPC: Silver-plated copper.

SPCA: Silver-plated high-strength copper alloy.

TPC: Tin-plated copper.

MIL-DTL-81381 part numbering and example

M81381/7 30 8 2

30 AWG

8 insulation color

Insulation color	
Code	**Color**
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White
N	Opaque dark yellow
C	Unpigmented

2 Stripe color

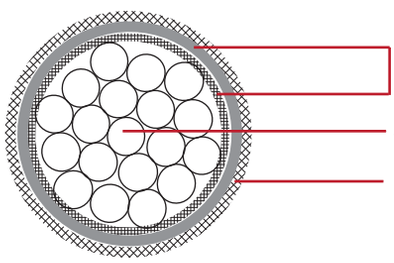
Stripe Color	
Code	**Color**
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	white

M81381/7

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/7 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

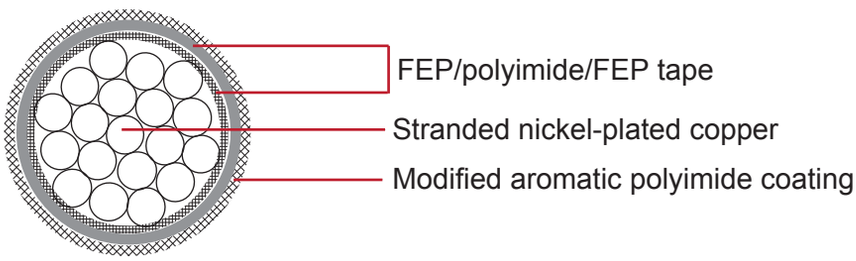
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
26	19/38	0.019	0.480	0.018	0.460	0.034	0.864	0.031	0.787	38.40	1.2
24	19/36	0.024	0.610	0.023	0.580	0.037	0.940	0.034	0.864	24.30	1.8
22	19/34	0.030	0.760	0.029	0.740	0.044	1.118	0.041	1.041	15.10	2.7
20	19/32	0.038	0.970	0.037	0.940	0.052	1.321	0.049	1.245	9.19	4.2
18	19/30	0.048	1.220	0.046	1.170	0.062	1.575	0.059	1.499	5.79	6.3
16	19/29	0.054	1.370	0.052	1.320	0.068	1.727	0.065	1.651	4.52	8.0
14	19/27	0.068	1.730	0.065	1.650	0.082	2.083	0.078	1.981	2.88	12.5
12	37/28	0.087	2.210	0.084	2.130	0.101	2.565	0.097	2.464	1.90	19.1
10	37/26	0.110	2.790	0.106	2.690	0.124	3.150	0.120	3.048	1.19	29.4

M81381/8

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/8 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded nickel-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

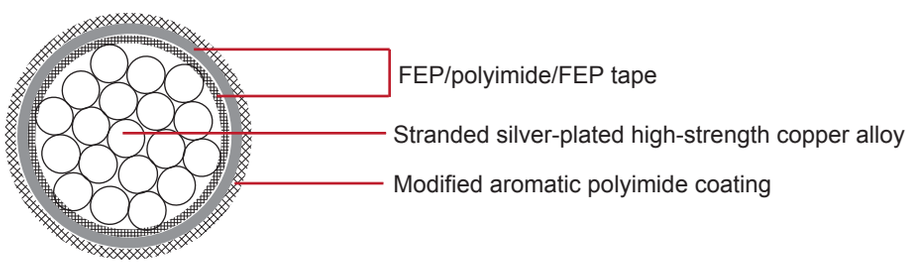
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
26	19/38	0.020	0.510	0.018	0.460	0.031	0.870	0.030	0.787	42.20	1.2
24	19/36	0.024	0.610	0.023	0.580	0.034	0.864	0.034	0.864	25.90	1.8
22	19/34	0.031	0.790	0.029	0.740	0.041	1.041	0.041	1.041	16.00	2.7
20	19/32	0.039	0.930	0.037	0.940	0.049	1.245	0.049	1.245	9.77	4.2
18	19/30	0.049	1.240	0.046	1.170	0.059	1.499	0.059	1.499	6.10	6.3
16	19/29	0.055	1.400	0.052	1.320	0.065	1.651	0.065	1.651	4.76	8.0
14	19/27	0.069	1.750	0.065	1.650	0.078	1.981	0.078	1.981	3.00	12.5
12	37/28	0.089	2.260	0.084	2.130	0.097	2.464	0.097	2.464	1.98	19.1
10	37/26	0.112	2.840	0.106	2.690	0.120	3.048	0.120	3.048	1.24	29.4

M81381/9

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/9 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code:MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight

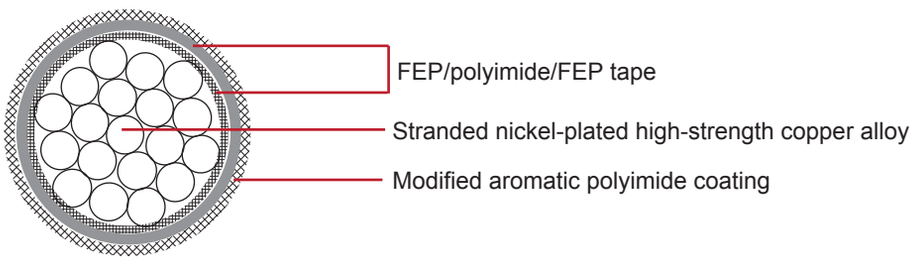
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
30	7/38	0.012	0.300	0.011	0.280	0.026	0.660	0.023	0.584	117.40	0.6
28	7/36	0.015	0.380	0.014	0.360	0.029	0.737	0.026	0.660	74.40	0.9
26	19/38	0.020	0.510	0.018	0.460	0.034	0.864	0.031	0.787	44.80	1.2
24	19/36	0.024	0.610	0.023	0.580	0.037	0.940	0.034	0.864	28.40	1.8
22	19/34	0.031	0.790	0.029	0.740	0.044	1.118	0.041	1.041	17.50	2.7
20	19/32	0.039	0.990	0.037	0.940	0.052	1.321	0.049	1.245	10.70	4.2

M81381/10

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/10 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded nickel-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
30	7/38	0.013	0.330	0.011	0.280	0.027	0.686	0.230	0.584	129.60	0.7
28	7/36	0.016	0.410	0.014	0.360	0.030	0.762	0.026	0.660	79.00	1.0
26	19/38	0.020	0.510	0.018	0.460	0.034	0.864	0.031	0.787	49.40	1.2
24	19/36	0.025	0.640	0.023	0.580	0.037	0.940	0034	0.864	30.10	1.8
22	19/34	0.031	0.790	0.029	0.740	0.041	1.041	0.041	1.041	18.60	2.7
20	19/32	0.040	1.020	0.037	0.940	0.049	1.245	0.049	1.245	11.40	4.2

M81381/11

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/11 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:

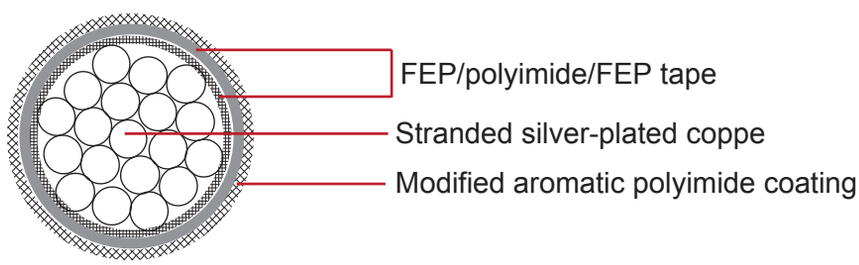
Conductor: Stranded silver-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065” (10 AWG and smaller) ,or polyamide braid(8 AWG and larger) (0.0084” or 0.0170”)

Jacket:

modified aromatic polyimide coating



Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code:MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/ MFT
		in	mm	in	mm	in	mm	in	mm		
24	19/36	0.024	0.610	0.023	0.580	0.044	1.118	0.040	1.016	24.30	1.9
22	19/34	0.030	0.760	0.029	0.740	0.049	1.245	0.045	1.143	15.10	2.8
20	19/32	0.038	0.970	0.037	0.940	0.057	1.448	0.053	1.346	9.19	4.2
18	19/30	0.048	1.220	0.046	1.170	0.067	1.702	0.063	1.600	5.79	6.5
16	19/29	0.054	1.370	0.052	1.320	0.073	1.854	0.068	1.727	4.52	8.1
14	19/27	0.068	1.730	0.065	1.650	0.086	2.184	0.081	2.057	2.88	12.0
12	37/28	0.087	2.210	0.084	2.130	0.105	2.667	0.100	2.540	1.90	19.0
10	37/26	0.110	2.790	0.106	2.690	0.127	3.226	0.122	3.099	1.19	29.0
8	133/29	0.166	4.220	0.158	4.010	0.206	5.232	0.188	4.775	0.66	61.8
6	133/27	0.208	5.280	0.198	5.030	0.251	6.375	0.228	5.791	0.42	95.1
4	133/25	0.263	6.680	0.250	6.350	0.306	7.772	0.280	7.112	0.27	148
2	665/30	0.340	8.640	0.320	8.130	0.378	9.601	0.350	8.890	0.17	235

M81381/12

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/12 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:

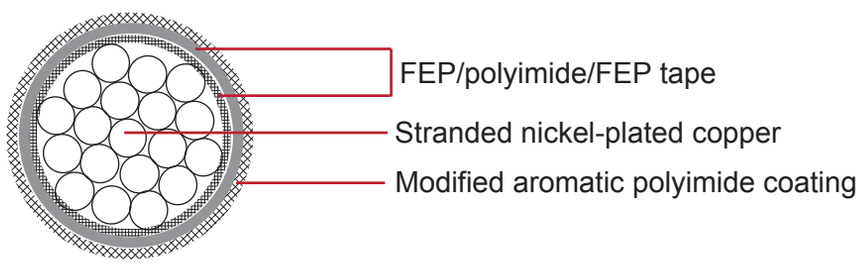
Conductor: Stranded nickel-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065” (10 AWG and smaller) ,or polyamide braid(8 AWG and larger) (0.0084” or 0.0154”)

Jacket:

Modified aromatic polyimide coating



Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

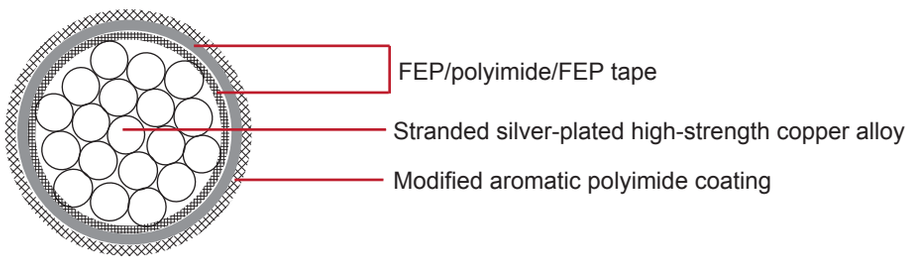
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O. D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
24	19/36	0.024	0.610	0.023	0.580	0.045	1.143	0.040	1.016	25.90	1.9
22	19/34	0.031	0.790	0.029	0.740	0.050	1.270	0.045	1.143	16.00	2.8
20	19/32	0.039	0.990	0.037	0.940	0.058	1.473	0.053	1.346	9.77	4.2
18	19/30	0.049	1.240	0.046	1.170	0.068	1.727	0.063	1.600	6.10	6.5
16	19/29	0.055	1.400	0.052	1.320	0.074	1.880	0.068	1.727	4.76	8.1
14	19/27	0.059	1.750	0.065	1.650	0.087	2.210	0.081	2.057	3.00	12.0
12	37/28	0.089	2.260	0.084	2.130	0.107	2.718	0.100	2.540	1.98	19.0
10	37/26	0.112	2.840	0.106	2.690	0.129	3.277	0.122	3.099	1.24	29.0
8	133/29	0.169	4.290	0.158	4.010	0.206	5.232	0.188	4.775	0.70	61.8
6	133/27	0.212	5.380	0.198	5.030	0.251	6.375	0.228	5.791	0.44	95.1
4	133/25	0.268	6.810	0.250	6.350	0.306	7.772	0.280	7.112	0.28	148.0
2	665/30	0.340	8.640	0.320	8.130	0.378	9.601	0.350	8.890	0.18	235.0

M81381/13

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/13 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

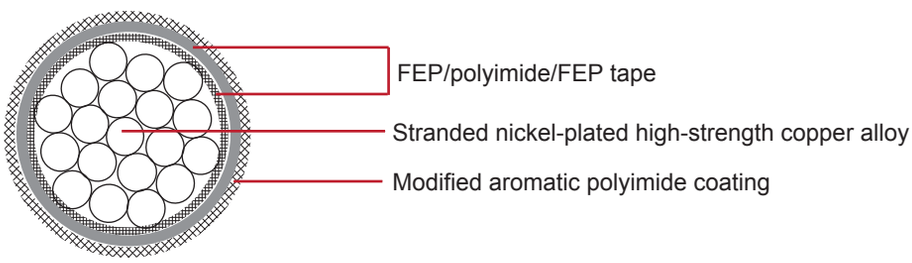
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
28	7/36	0.015	0.380	0.014	0.350	0.035	0.889	0.031	0.787	74.40	1.2
26	19/38	0.020	0.510	0.018	0.460	0.040	1.016	0.036	0.914	44.80	1.3
24	19/36	0.024	0.610	0.023	0.580	0.045	1.143	0.041	1.041	28.40	1.9
22	19/34	0.031	0.790	0.029	0.740	0.051	1.295	0.047	1.194	17.50	2.8
20	19/32	0.039	0.990	0.037	0.940	0.060	1.524	0.059	1.499	10.70	4.2

M81381/14

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/14 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded nickel-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic poyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

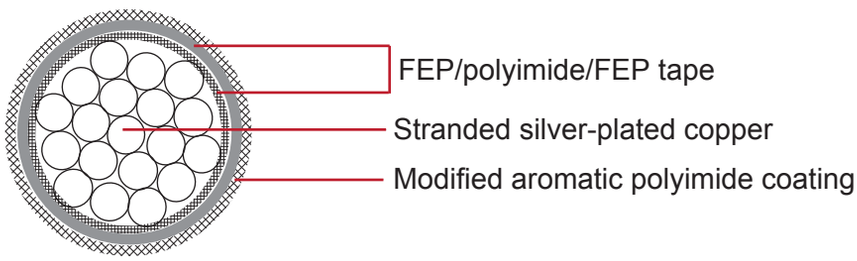
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/ MFT
		in	mm	in	mm	in	mm	in	mm		
28	7/36	0.016	0.410	0.014	0.360	0.035	0.889	0.031	0.787	79.00	1.2
26	19/38	0.020	0.510	0.018	0.460	0.040	1.016	0.036	0.914	49.40	1.3
24	19/36	0.025	0.640	0.023	0.580	0.045	1.143	0.041	1.041	30.10	1.9
22	19/34	0.031	0.790	0.029	0.740	0.051	1.295	0.047	1.194	18.60	2.8
20	19/32	0.040	1.020	0.037	0.940	0.060	1.524	0.059	1.499	11.40	4.2

M81381/17

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/17 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

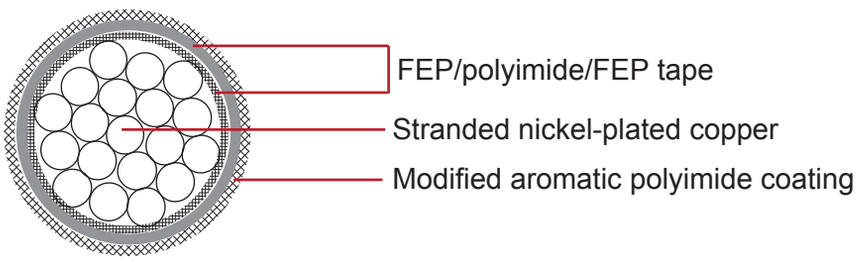
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/ MFT
		in	mm	in	mm	in	mm	in	mm		
26	19/38	0.019	0.480	0.018	0.460	0.03	0.762	0.028	0.700	38.40	1.2
24	19/36	0.024	0.610	0.023	0.580	0.035	0.889	0.032	0.800	24.30	1.8
22	19/34	0.030	0.760	0.029	0.740	0.041	1.041	0.038	1.000	15.10	2.6
20	19/32	0.038	0.970	0.037	0.940	0.049	1.245	0.046	1.200	9.19	4.1
18	19/30	0.048	1.220	0.046	1.170	0.058	1.473	0.055	1.400	5.79	6.3
16	19/29	0.054	1.370	0.052	1.320	0.065	1.651	0.062	1.600	4.52	7.9
14	19/27	0.068	1.730	0.065	1.650	0.078	1.981	0.075	1.900	2.88	12.3
12	37/28	0.087	2.210	0.084	2.130	0.098	2.489	0.094	2.400	1.90	19

M81381/18

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/18 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded nickel-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

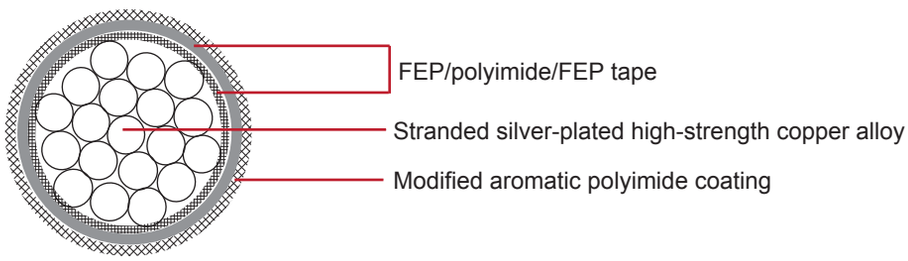
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
26	19/38	0.020	0.510	0.018	0.460	0.030	0.762	0.028	0.711	42.20	1.2
24	19/36	0.024	0.610	0.023	0.580	0.035	0.889	0.032	0.813	25.90	1.8
22	19/34	0.031	0.790	0.029	0.740	0.041	1.041	0.038	0.965	16.00	2.6
20	19/32	0.039	0.990	0.037	0.940	0.049	1.245	0.046	1.168	9.77	4.1
18	19/30	0.049	1.240	0.046	1.170	0.058	1.473	0.055	1.397	6.10	6.3
16	19/29	0.055	1.400	0.052	1.320	0.065	1.651	0.062	1.575	4.76	7.9
14	19/27	0.069	1.750	0.065	1.650	0.078	1.981	0.075	1.905	3.00	12.3
12	37/28	0.089	2.260	0.084	2.130	0.098	2.489	0.094	2.388	1.98	19.0

M81381/19

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/19 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

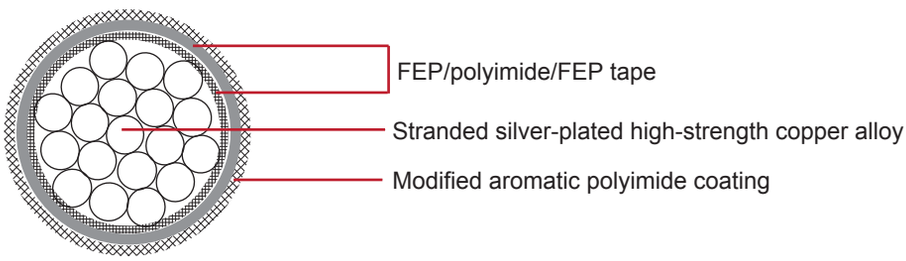
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
30	7/38	0.012	0.300	0.011	0.280	0.024	0.610	0.021	0.533	117.40	0.6
28	7/36	0.150	0.380	0.014	0.360	0.027	0.686	0.024	0.610	74.40	0.8
26	19/38	0.200	0.510	0.018	0.460	0.030	0.762	0.028	0.711	44.80	1.2
24	19/36	0.024	0.610	0.023	0.580	0.035	0.889	0.032	0.813	28.40	1.8
22	19/34	0.031	0.790	0.029	0.740	0.041	1.041	0.038	0.965	17.50	2.6
20	19/32	0.039	0.990	0.037	0.940	0.050	1.270	0.047	1.194	10.70	4.1

M81381/20

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/20 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded silver-plated high-strength copper alloy conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 200°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

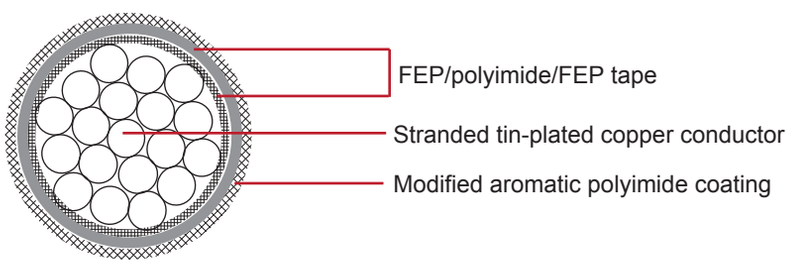
AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
30	7/38	0.013	0.330	0.011	0.280	0.024	0.610	0.021	0.533	126.6	0.6
28	7/36	0.016	0.410	0.014	0.360	0.027	0.686	0.024	0.610	79.0	0.8
26	19/38	0.020	0.500	0.018	0.460	0.030	0.762	0.028	0.711	49.4	1.2
24	19/36	0.025	0.640	0.023	0.580	0.035	0.889	0.032	0.813	30.1	1.8
22	19/34	0.031	0.790	0.029	0.740	0.041	1.041	0.038	0.965	18.6	2.6
20	19/32	0.040	1.020	0.037	0.940	0.050	1.270	0.047	1.194	11.4	4.1

M81381/21

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/21 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:



Conductor: Stranded tin-plated copper conductor

Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness: 0.0065”

Jacket: modified aromatic polyimide coating

Characteristics:

Temperature Range: -55°C + 150°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
26	19/38	0.021	0.530	0.018	0.460	0.034	0.864	0.030	0.762	41.30	1.2
24	19/36	0.026	0.660	0.023	0.580	0.038	0.965	0.034	0.864	26.20	1.9
22	19/34	0.033	0.840	0.029	0.740	0.045	1.143	0.041	1.041	16.20	2.9
20	19/32	0.041	1.040	0.037	0.940	0.053	1.346	0.048	1.219	9.88	4.2
18	19/30	0.051	1.300	0.046	1.170	0.063	1.600	0.058	1.473	6.23	6.4
16	19/29	0.058	1.470	0.052	1.320	0.069	1.753	0.064	1.626	4.81	8.2
14	19/27	0.073	1.850	0.065	1.650	0.083	2.108	0.077	1.956	3.06	12.5
12	37/28	0.090	2.290	0.084	2.130	0.102	2.591	0.097	2.464	2.02	20.4
10	37/26	0.114	2.900	0.106	2.690	0.125	3.175	0.120	3.048	1.26	32.0

M81381/22

Application and Description:

These FEP/polyimide/FEP tape insulated single-core M81381/22 cables are used in aerospace applications and other challenging applications. It is well-suited to applications concerned with smoke emission and overload stability.

Construction:

Conductor: Tin coated copper

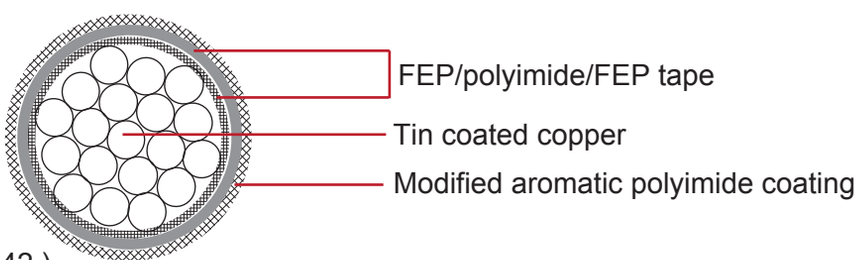
Insulation: FEP/polyimide/FEP tape insulation

Insulation Wall Thickness:

0.0065”(10 AWG and smaller), or polyamide braid (8 AWG and larger), (0.0084” or 0.0170”)

Jacket:

modified aromatic polyimide coating



Characteristics:

Temperature Range: -55°C + 150°C

Voltage Rating: 600 volts

Color Code: MIL-STD-104 (See page 42)

10 basic colors(BLK,BRN,RED,ORN,YEL,GRN,BLU,VIO,GRY,WHT)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam. Max.		Conductor Diam. Min.		Max. O.D.		Min. O.D.		Maximum Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm	in	mm	in	mm		
24	19/36	0.026	0.660	0.023	0.580	0.044	1.118	0.040	1.016	26.2	2.1
22	19/34	0.033	0.840	0.029	0.740	0.049	1.245	0.045	1.143	16.2	3.0
20	19/32	0.041	1.040	0.037	0.940	0.058	1.473	0.053	1.346	9.88	4.5
18	19/30	0.051	1.300	0.046	1.170	0.068	1.727	0.063	1.600	6.23	6.7
16	19/29	0.058	1.470	0.052	1.320	0.074	1.880	0.068	1.727	4.81	8.4
14	19/27	0.073	1.850	0.035	1.650	0.089	2.261	0.081	2.057	3.06	13.0
12	37/28	0.090	2.290	0.084	2.130	0.107	2.718	0.100	2.540	2.02	20.0
10	37/26	0.114	2.900	0.106	2.690	0.130	3.302	0.122	3.099	1.26	31.0
8	133/29	0.173	4.390	0.158	4.010	0.206	5.230	0.188	4.780	0.70	61.8
6	133/27	0.217	5.510	0.198	5.030	0.251	6.380	0.228	5.790	0.45	95.1
4	133/25	0.274	6.960	0.250	6.350	0.306	7.770	0.280	7.110	0.28	148.0
2	665/30	0.340	8.640	0.320	8.130	0.378	9.600	0.350	8.890	0.14	235.0

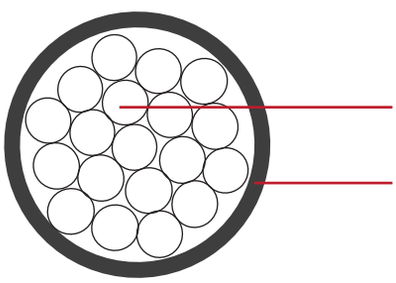
MIL-W-76

MIL-W-76B type MW

Application and Description:

These PVC insulated single-core MIL-W-76B type MW cables are used for internal wiring of electrical and electronic equipment. It is flame and ozone resistant and inert to most chemicals, oils, and solvents.

Construction:



Conductor: Stranded and solid tinned copper conductor

Insulation: Extruded PVC Insulation

Characteristics:

Temperature Range: -40ºC to +80ºC

Voltage Rating: 1000 volts

Dimensions and Weight:

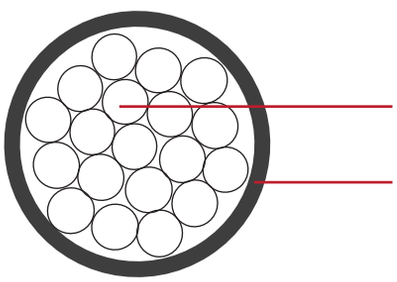
AWG Size	Conductor Stranding	Insulation Thickness		Nom. O.D.		Approx LBS/ MFT
		in	mm	in	mm	
24	7x32	0.016	0.406	0.058	1.473	2.7
24	Solid	0.016	0.406	0.054	1.372	2.5
22	7x30	0.016	0.406	0.064	1.626	3.7
22	Solid	0.016	0.406	0.059	1.499	3.4
20	10x30	0.016	0.406	0.070	1.778	5.3
20	Solid	0.016	0.406	0.066	1.676	4.6
18	16x30	0.016	0.406	0.080	2.032	8.1
18	Solid	0.016	0.406	0.074	1.880	6.7
16	26x30	0.016	0.406	0.092	2.337	10
16	solid	0.016	0.406	0.083	2.108	9.9
14	19x27	0.016	0.406	0.083	2.108	14.9
12	19x25	0.016	0.406	0.106	2.692	22.8

MIL-W-76B type LW

Application and Description:

These chemical and moisture resistant PVC insulated single-core MIL-W-76B type LW thin wall cables are used for internal wiring of electrical and electronic equipment. It is also resistant to water, oil, acids, solvents and fungus.

Construction:



Conductor: Stranded or solid tinned copper

Insulation: Chemical and moisture resistant PVC.

Characteristics:

Temperature Range: -55ºC to +90ºC

Voltage Rating: 300 volts

Dimensions and Weight:

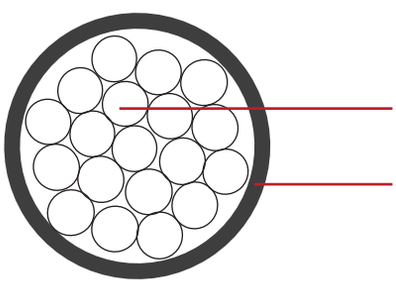
AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
30	Solid	0.010	0.254	0.030	0.762	1.0
30	7/38	0.012	0.305	0.032	0.813	1.0
28	Solid	0.013	0.330	0.033	0.838	1.1
28	7/36	0.015	0.381	0.035	0.889	1.1
26	Solid	0.016	0.406	0.036	0.914	1.5
26	7/34	0.019	0.483	0.039	0.991	1.5
24	Solid	0.020	0.508	0.040	1.016	2.2
24	7/32	0.024	0.610	0.044	1.118	2.2
22	Solid	0.025	0.635	0.045	1.143	3.3
22	7/30	0.030	0.762	0.050	1.270	3.3
20	Solid	0.032	0.813	0.052	1.321	4.1
20	7/28	0.038	0.965	0.058	1.473	4.1

MIL-W-76B type HW

Application and Description:

These chemical and moisture resistant PVC insulated single-core MIL-W-76B type HW purpose heavy wall cables are used for internal wiring of electrical and electronic equipment. It is also resistant to water, oil, acids, solvents and fungus.

Construction:



Conductor: Stranded Tinned Copper

Insulation: Chemical and moisture resistant PVC.

Characteristics:

Temperature Range: -55ºC to +90ºC

Voltage Rating:

250 Volt RMS - 22AWG to 16AWG

600 Volt RMS - 14AWG

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Approx LBS/MFT
		in	mm	in	mm	
22	7/30	0.030	0.762	0.092	2.337	6.0
20	10/30	0.037	0.940	0.099	2.515	7.6
18	16/30	0.045	1.143	0.107	2.718	10.3
16	19/29	0.059	1.499	0.120	3.048	12.9
14	19/27	0.073	1.854	0.163	4.140	22.1
12	19/25	0.092	2.337	0.182	4.623	32.1
10	37/26	0.115	2.921	0.205	5.207	43.6
8	133/29	0.166	4.216	0.258	6.553	74.8
6	133/27	0.210	5.334	0.300	7.620	101.3

MIL-W-8777

MS 27110 (Mil-W-8777 Wire)

Application and Description:

These silicone rubber primary insulated single-core MS 27110 (Mil-W-8777 Wire) cables are used in aircraft and missiles using any combination of electrical loading and ambient temperature. It has low moisture absorption and generally good resistance to chemicals.

Construction:

Conductor: Stranded, silver-coated copper conductor

Insulation: Silicone rubber primary insulation

Braid: The glass braid of tightly woven glass fibers impregnated with silicone or teflon

Jacket: extruded clear fluorinated ethylene (FEP)

Characteristics:

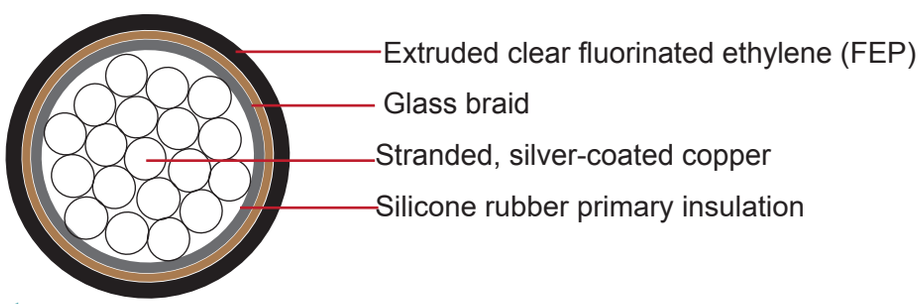
Temperature Range: 200°C

Voltage Rating: 600 volts

MS27110

MIL-W-8777

MIL-DTL-8777



Dimensions and Weight:

AWG Size	Conductor Stranding	Jacket Thick	Max. O.D.		Min. O.D.		Max. Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
			in	mm	in	mm		
22	19/34	0.007	0.090	2.286	0.082	2.083	15.20	7.1
20	19/32	0.007	0.01	0.254	0.092	2.337	9.42	9.0
18	19/30	0.007	0.112	2.845	0.104	2.642	6.03	12.1
16	19/29	0.007	0.120	3.048	0.112	2.845	4.76	14.3
14	19/27	0.008	0.145	3.683	0.137	3.480	2.99	21.5
12	19/25	0.008	0.165	4.191	0.155	3.937	1.88	30.5
10	49/27	0.008	0.199	5.055	0.189	4.801	1.16	48.0
8	133/29	.0100	0.25	6.350	0.236	5.994	0.70	75.0
6	133/27	0.010	0.299	7.595	0.285	7.239	0.44	114.0
4	133/25	0.010	0.364	9.246	0.35	8.890	0.28	173.0

MS 25471 (Mil-W-8777 Wire)

Application and Description:

These silicone rubber primary insulated single-core MS 25471 (Mil-W-8777 Wire) cables are used in aircraft and missiles using any combination of electrical loading and ambient temperature. It has low moisture absorption and generally good resistance to chemicals.

Construction:

Conductor: Stranded, silver-coated copper conductor

Insulation: Silicone rubber primary insulation

Braid: Inner braid glass fibers or combination of glass fibers and polyester fibers impregnated with high temperature finisher.

Jacket: Outer jacket of polyester fiber impregnated with high temperature finisher

Characteristics:

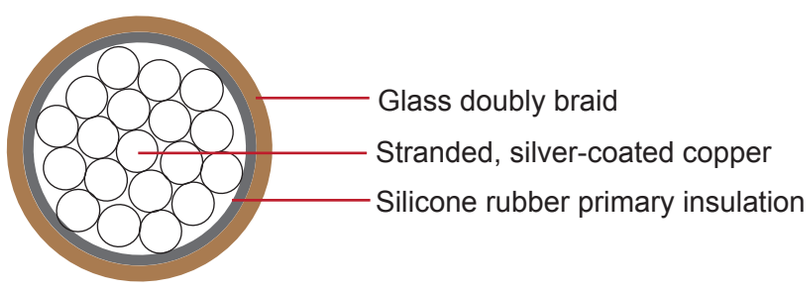
Temperature Range: 200°C

Voltage Rating: 600 volts

MS25471

MIL-W-8777

MIL-DTL-8777



Color Code: Black or White per MIL-STD-104; Tan (per MIL-W-8777 spec)

Dimensions and Weight:

AWG Size	Conductor Stranding	Max. O.D.		Min. O.D.		Max. Resistance (Ohm/1000' @ 20°C)	Approx LBS/MFT
		in	mm	in	mm		
22	19/34	0.090	2.286	0.080	2.032	15.20	5.8
20	19/32	0.100	2.540	0.090	2.286	9.42	7.8
18	19/30	0.115	2.921	0.105	2.667	6.03	10.8
16	19/29	0.130	3.302	0.120	3.048	4.76	13.5
14	19/27	0.136	3.454	0.150	3.810	2.99	20.0
12	19/25	0.170	4.318	0.156	3.962	1.88	29.0
10	49/27	0.200	5.080	0.186	4.724	1.16	45.0
8	133/29	0.255	6.477	0.241	6.121	0.70	72.0
6	133/27	0.310	7.874	0.296	7.518	0.44	107.0
4	133/25	0.370	9.398	0.500	12.700	0.28	165.0
2	665/30	0.435	11.049	0.415	10.541	0.18	262.0
1	817/30	0.470	11.938	0.450	11.430	0.15	317.0
1/0	1045/30	0.550	13.970	0.520	13.208	0.15	390.0
2/0	1330/30	0.600	15.240	0.570	14.478	0.09	500.0

MIL-W-81822 MIL-Spec Wire

Construction characteristics—MIL-W-81822 wires

MIL-W-81822 Specification	Insulation Material	Conductor Material	Temperature Rating
MIL-W-81822/3	Extruded PVDF	Type A :Annealed solid EFT silver-plated copper Type B :Annealed solid OFHC silver-plated copper Type C :Solid silver-plated high-strength copper alloy(Alloy 135)	135
MIL-W-81822/4	Extruded PTFE with polyimide ”H” dip coating		200
MIL-W-81822/6	Extruded PTFE		200
MIL-W-81822/13	Extruded ETFE		150

MIL-W-81822 part numbering and example

M81822/4 A 30 7

A Conductor material

Conductor Material	
Letter	**Material**
A	Annealed solid ETP silver-plated copper
B	Annealed solid OFHC silver-plated copper
C	Solid silver-plated high-strength copper alloy(Alloy 135)

30 AWG size

7 Color code

Color Code	
Number	**Color**
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

MIL-W-81822/3

Application and Description:

These extruded PVDF (polyvinylidene fluoride) insulated single-core MIL-W-81822/3 cables are used in computer back panels and electronic equipment. This insulation provides weight savings with outstanding insulation toughness.

Construction:

Conductor: Type A: Silver-plated ETP copper

Type B: Silver-plated OFHC copper

Type C: Silver-plated Alloy 135 copper

Insulation: Extruded PVDF (polyvinylidene fluoride)

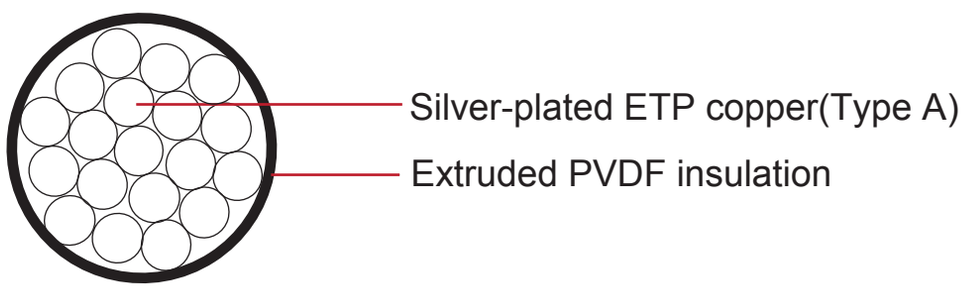
Characteristics:

Temperature Range: 135ºC

Voltage Rating: 300 volts

Color Code:

MIIL-STD-104(See page 65)



Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Nom. O.D.		Max. Resistance @ 20°C OHMS/ MFT	Approx LBS/MFT
		in	mm	in	mm		
18	Solid	0.040	1.016	0.0510	1.295	6.59	6.2
20	Solid	0.032	0.813	0.0440	1.118	10.40	4.1
22	Solid	0.0253	0.643	0.0390	0.991	16.80	2.5
24	Solid	0.0201	0.511	0.0340	0.864	26.50	1.7
26	Solid	0.0159	0.404	0.0295	0.749	42.70	1.5
28	Solid	0.0126	0.320	0.0265	0.673	68.00	0.8
30	Solid	0.0100	0.254	0.0195	0.495	108.00	0.5
18	Solid	0.0400	1.016	0.0540	1.372	6.59	4.7
20	Solid	0.0320	0.813	0.0460	1.168	10.40	3.6
22	Solid	0.0253	0.643	0.0390	0.991	16.80	2.5
24	Solid	0.0201	0.511	0.0340	0.864	26.50	1.9
26	Solid	0.0159	0.404	0.0295	0.749	42.70	1.2
28	Solid	0.0126	0.320	0.0265	0.673	68.00	0.8
30	Solid	0.0100	0.254	0.0195	0.495	108 .00	0.5
18	Solid	0.040	1.016	0.051	1.295	7.74	6.2
20	Solid	0.032	0.813	0.044	1.118	12.20	4.1
22	Solid	0.0253	0.643	0.0390	0.991	19.70	2.5
24	Solid	0.0201	0.511	0.0340	0.864	31.00	1.7
26	Solid	0.0159	0.404	0.0295	0.749	50.40	1.2
28	Solid	0.0126	0.320	0.0265	0.673	79.40	0.8
30	Solid	0.0100	0.254	0.0195	0.495	126.00	0.5

MIL-W-81822/4

Application and Description:

These extruded thin wall PTFE (polyvinylidene fluoride) insulated single-core MIL-W-81822/4 cables are used in back panel wire wrap applications. these wires have increased cut-through and abrasion resistance. Solid conductors can be used in wire-wrap applications like back panel wiring.

Construction:

Conductor:

Type A: Silver-plated ETP copper

Type B: Silver-plated OFHC copper

Type C: Silver-plated High-Strength Copper Alloy

Insulation: Extruded PTFE/Polyimide

Characteristics:

Temperature Range: 200ºC

Voltage Rating: 300 volts

MIL-W-81822/4 Wire Wrap – PTFE/Polyimide

SAE AS81822/4

Color Code:MIIL-STD-104(See page 65)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Insulation Diam. Min.		Insulation Diam. Max.		Max. Resistance @ 20°C OHMS/MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
Type A									
20	Solid	0.0320	0.813	0.044	1.120	0.048	1.220	10.40	4.2
22	Solid	0.0253	0.643	0.037	0.940	0.041	1.040	16.80	2.8
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	26.50	1.9
26	Solid	0.0159	0.404	0.028	0.711	0.031	0.787	42.70	1.3
28	Solid	0.0126	0.320	0.025	0.635	0.028	0.711	68.00	1.0
30	Solid	0.0100	0.254	0.0185	0.47	0.0205	0.521	108.00	0.6
Type B									
20	Solid	0.032	0.813	0.0440	1.120	0.0480	1.220	10.40	4.2
22	Solid	0.0253	0.643	0.0370	0.940	0.0410	1.040	16.80	2.8
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	26.50	1.9
26	Solid	0.0159	0.404	0.0280	0.711	0.0310	0.787	42.70	1.3
28	Solid	0.0126	0.320	0.0250	0.635	0.0280	0.711	68.00	1.0
30	Solid	0.0100	0.254	0.0185	0.470	0.0205	0.521	108.00	0.6
Type C									
20	Solid	0.0320	0.813	0.0440	1.120	0.0480	1.220	12.20	4.2
22	Solid	0.0253	0.643	0.0370	0.940	0.0410	1.040	19.70	2.8
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	31.00	1.9
26	Solid	0.0159	0.404	0.0280	0.711	0.0310	0.787	50.40	1.3
28	Solid	0.0126	0.320	0.0250	0.635	0.0280	0.711	79.40	1.0
30	Solid	0.0100	0.254	0.0185	0.470	0.0205	0.521	126.00	0.6

MIL-W-81822/6

Application and Description:

These extruded thin wall PTFE (polyvinylidene fluoride) insulated single-core MIL-W-81822/6 cables are used in back panel wire wrap applications. These wires have solid conductors for wire-wrap applications such as back panel wiring, with a choice of three conductor materials

Construction:

Conductor:

Type A: Silver-plated ETP copper

Type B: Silver-plated OFHC copper

Type C: Silver-plated High-Strength Copper Alloy

Insulation: Thin-wall extruded PTFE

Characteristics:

Temperature Range: 200ºC

Voltage Rating: 300 volts

SAE AS81822/6

Color code: MIIL-STD-104(See page 65)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Insulation Diam. Min.		Insulation Diam. Max.		Max. Resistance @ 20°C OHMS/MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
Type A									
20	Solid	0.0320	0.813	0.0540	1.370	0.0580	1.470	10.40	5.0
22	Solid	0.0253	0.643	0.0460	1.170	0.0500	1.270	16.80	3.4
24	Solid	0.0201	0.511	0.0400	1.020	0.0440	1.120	26.50	2.4
26	Solid	0.0159	0.404	0.0290	0.737	0.0330	0.838	42.70	1.4
28	Solid	0.0126	0.320	0.0240	0.610	0.0280	0.711	68.00	1.0
30	Solid	0.0100	0.254	0.0210	0.533	0.0270	0.610	108.00	0.7
Type B									
20	Solid	0.0320	0.813	0.0540	1.370	0.0580	1.470	10.40	5.0
22	Solid	0.0253	0.643	0.0460	1.170	0.0500	1.270	16.80	3.4
24	Solid	0.0201	0.511	0.0400	1.020	0.0440	1.120	26.50	2.4
26	Solid	0.0159	0.404	0.0290	0.737	0.0330	0.838	42.70	1.4
28	Solid	0.0126	0.320	0.0240	0.610	0.0280	0.711	68.00	1.0
30	Solid	0.0100	0.254	0.0210	0.533	0.0240	0.610	108.00	0.7
Type C									
20	Solid	0.0320	0.813	0.0540	1.370	0.0580	1.470	12.20	5.0
22	Solid	0.0253	0.643	0.0460	1.170	0.0500	1.270	19.70	3.4
24	Solid	0.0201	0.511	0.0400	1.020	0.0440	1.120	31.00	2.4
26	Solid	0.0159	0.404	0.0290	0.737	0.0330	0.838	50.40	1.4
28	Solid	0.0126	0.320	0.0240	0.610	0.0280	0.711	79.40	1.0
30	Solid	0.0100	0.254	0.0210	0.533	0.0240	0.610	126.00	0.7

MIL-W-81822/13

Application and Description:

These extruded ETFE (polyvinylidene fluoride) insulated single-core MIL-W-81822/13 cables are used for aerospace and other applications where light weight, tight jacket diameter tolerances and mechanical toughness are required. ETFE insulation also provides exceptional resistance to radiation and chemicals.

Construction:

Conductor:

Type A: Silver-plated ETP copper

Type B: Silver-plated OFHC copper

Type C: Silver-plated High-Strength Copper Alloy

Insulation: Extruded ETFE

Characteristics:

Temperature Range: -55˚C to 150°C

Voltage Rating: 300 volts

SAE AS81822/13

Color code: MIIL-STD-104(See page 65)

Dimensions and Weight:

AWG Size	Conductor Stranding	Conductor Diam.		Insulation Diam. Min.		Insulation Diam. Max.		Max. Resistance @ 20°C OHMS/MFT	Approx LBS/MFT
		in	mm	in	mm	in	mm		
Type A									
20	Solid	0.0320	0.813	0.0440	1.120	0.0480	1.220	10.40	4.1
22	Solid	0.0253	0.643	0.0370	0.940	0.0410	1.040	16.80	2.5
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	26.50	1.7
24	Solid	0.0201	0.511	0.0285	0.724	0.0315	0.800	26.50	1.7
26	Solid	0.0159	0.404	0.0280	0.711	0.0310	0.787	42.70	1.1
26	Solid	0.0159	0.404	0.0245	0.622	0.0275	0.699	42.70	1.1
28	Solid	0.0126	0.320	0.0250	0.635	0.0280	0.711	68.00	0.8
28	Solid	0.0126	0.320	0.0215	0.546	0.0245	0.622	68.00	0.8
30	Solid	0.0100	0.254	0.0185	0.470	0.0205	0.521	108.0	0.5
Type B									
20	Solid	0.0320	0.813	0.0440	1.120	0.0480	1.220	10.40	3.6
22	Solid	0.0253	0.643	0.0370	0.940	0.0410	1.040	16.80	2.5
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	26.50	1.7
24	Solid	0.0201	0.511	0.0285	0.724	0.0315	0.800	26.50	1.7
26	Solid	0.0159	0.404	0.0280	0.711	0.0310	0.787	42.70	1.1
26	Solid	0.0159	0.404	0.0245	0.622	0.0275	0.699	42.70	1.1
28	Solid	0.0126	0.320	0.0250	0.635	0.0280	0.711	68.00	0.8
28	Solid	0.0126	0.320	0.0215	0.546	0.0245	0.622	68.00	0.8
30	Solid	0.0100	0.254	0.0185	0.470	0.0205	0.521	108.00	0.5
Type C									
20	Solid	0.0320	0.813	0.0440	1.120	0.0480	1.220	12.20	4.1
22	Solid	0.0253	0.643	0.0370	0.940	0.0410	1.040	19.70	2.5
24	Solid	0.0201	0.511	0.0325	0.826	0.0355	0.902	31.00	1.7
24	Solid	0.0201	0.511	0.0285	0.724	0.0315	0.800	31.00	1.6
26	Solid	0.0159	0.404	0.0280	0.711	0.0310	0.787	50.40	1.1
26	Solid	0.0159	0.404	0.0245	0.622	0.0275	0.699	50.40	1.1
28	Solid	0.0126	0.320	0.0250	0.635	0.0280	0.711	76.40	0.8
28	Solid	0.0126	0.320	0.0215	0.546	0.0245	0.622	79.40	0.8
30	Solid	0.0100	0.254	0.0185	0.470	0.0205	0.521	126.00	0.5

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