

The manufacturer's commitment to quality and service starts at the beginning... with the manufacturing of single conductor hook-up wire, the most basic wiring component.

Used extensively for both electrical and electronic equipment, hook-up wires are required to perform in increasingly critical environments. Cost-effective production methods necessitate uniform wire handling characteristics: strippability, strand uniformity, precise dimensions, and permanent colors and markings. Industry trends such as miniaturization, plus new environmental and product liability considerations require improved insulation materials.

So the manufacturer offers the highest quality hook-up wires in a broader-than-ever range of insulation materials, sizes, colors and packaging to quickly and efficiently meet the new demands in the marketplace. All are available in ready-to-use form, from 100 feet (30m) to production requirements.

A STYLE TO SUIT ANY NEED

PVC Polyvinylchloride, sometimes referred to as PVC or vinyl, is the most widely used insulation for wiring electrical or electronic equipment. PVC is inherently flame-retardant and used in most normal environments and applications.

Irradiated PVC Special PVC treated with electron beam radiation to improve temperature and solder iron resistance. Used extensively in high density wiring.

Irradiated Polyolefin Special radiation cross-linked polyolefin insulation for 125°C wiring. Used as low-cost alternative to Teflon® where temperatures exceed the capabilities of PVC.

TFE Teflon® High-performance insulation with temperature range of -65° to 200°C. Teflon® is chemically inert and unaffected by solvents, making it the ideal insulation for extreme temperature or chemical environments.

It's easy to find the exact hook-up wire insulation you need - it's listed in the chart below.

This section contains a complete listing of hook-up wires, laid out by type of insulation materials. Within each type of insulation material, products are listed in the order of ascending temperature rating, and within temperature rating, ascending voltage. Simply find the product that fits your needs.

	100°C	125°C	150°C	175°C	200°C
PVC (105)					
POLYOLEFIN (125)					
KYNAR** (125)					
TEFZEL* (150)					
TFE TEFLON* (200)					

*Teflon and Tefzel are registered trademarks of E.I. DuPont
 **Kynar is a registered trademark of Pennwalt

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PVC INSULATION
80°C/105°C, 300 VOLT

UL 1007/1569
CSA TR-64

CHARACTERISTICS

Operating Temperature:

- -40°C to 105°C - UL AWM 1569
- -40°C to 90°C - CSA TR-64
- -40°C to 80°C - UL AWM 1007

Voltage Rating:

- 300 Volt

Product Description:

- Conductor: Stranded or Solid Tinned Copper
- Insulation: Color-Coded PVC

SPECIFICATIONS

- UL AWM Styles 1007 and 1569
- CSA TR-64



Underwriters Laboratories Inc.



Underwriters Laboratories Inc.



Canadian Standards Association

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
3047	---	30	7/38	0.016	0.41	0.043	1.09	1 - 10
3048	---	28	7/36	0.016	0.41	0.047	1.19	1 - 10
3049	---	26	7/34	0.016	0.41	0.051	1.30	1 - 10
3050	---	24	7/32	0.016	0.41	0.057	1.45	1 - 19 + 28, 30
3051	---	22	7/30	0.016	0.41	0.065	1.65	1 - 19 + 28, 30
3053	---	20	10/30	0.016	0.41	0.071	1.80	1 - 19 + 28, 30
3055	---	18	16/30	0.016	0.41	0.080	2.03	1 - 19 + 28, 30
3057	---	16	26/30	0.016	0.41	0.095	2.41	1 - 19 + 28, 30

*See color chart below

SOLID CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
3050/1	---	24	Solid	0.016	0.41	0.057	1.45	1 - 10
3051/1	---	22	Solid	0.016	0.41	0.065	1.65	1 - 10
3053/1	---	20	Solid	0.016	0.41	0.071	1.80	1 - 10
3055/1	---	18	Solid	0.016	0.41	0.080	2.03	1 - 10
3057/1	---	16	Solid	0.016	0.41	0.095	2.41	1 - 10

*See color chart below

SEMI RIGID PVC INSULATION
80°C, 300 VOLT

UL 1061
CSA AWM I A/B FT1

CHARACTERISTICS

Operating Temperature:

- -10°C to 80°C

Voltage Rating:

- 300 Volt

Product Description:

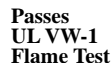
- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded, Semi Rigid PVC

SPECIFICATIONS

- UL AWM Styles 1061
- CSA AWM I A/B FT1



Underwriters Laboratories Inc.



Underwriters Laboratories Inc.



Canadian Standards Association

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
3250	---	24	7/32	0.009	0.23	0.042	1.07	1 - 10
3251	---	22	7/30	0.009	0.23	0.048	1.22	1 - 10
3252	---	20	7/28	0.009	0.23	0.056	1.42	1 - 10
3253	---	18	7/26	0.009	0.23	0.066	1.68	1 - 10
3254	---	16	7/24	0.009	0.23	0.078	1.98	1 - 10

*See color chart below

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

PVC INSULATION

80°C, 1000 VOLT

MIL-W-76B

TYPE MW

CHARACTERISTICS

Operating Temperature:

- -40°C to 80°C

Voltage Rating:

- 1000 Volt

Product Description:

- Conductor: Stranded or Solid Tinned Copper
- Insulation: Color-Coded PVC

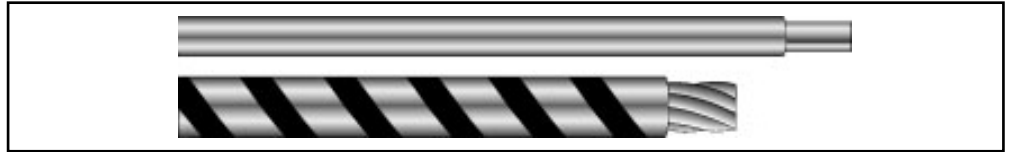
SPECIFICATIONS

- MIL-W-76B Type MW

Passes
VW-1
Flame Test

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
1550	MW-C24(7)U	24	7/32	0.016	0.41	0.059	1.50	1 - 19
1551	MW-C22(7)U	22	7/30	0.016	0.41	0.064	1.63	1 - 19
1553	MW-C20(10)U	20	10/30	0.016	0.41	0.068	1.72	1 - 19
1555	MW-C18(16)U	18	16/30	0.016	0.41	0.078	1.98	1 - 19
1557	MW-C16(26)U	16	26/30	0.016	0.41	0.095	2.41	1 - 19
1559	MW-C14(41)U	14	41/30	0.016	0.41	0.101	2.56	1 - 10
1560	MW-C12(65)U	12	65/30	0.016	0.41	0.125	3.18	1 - 10

*See color chart below

SOLID CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
1561/24	MW-C24(1)U	24	Solid	0.016	0.41	0.055	1.40	1 - 6
1561	MW-C22(1)U	22	Solid	0.016	0.41	0.060	1.52	1 - 6
1563	MW-C20(1)U	20	Solid	0.016	0.41	0.066	1.68	1 - 6
1565	MW-C18(1)U	18	Solid	0.016	0.41	0.074	1.88	1 - 6

*See color chart below

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

PVC INSULATION
80°C, 600 VOLT

MIL-W-76B
TYPE HW

CHARACTERISTICS

Operating Temperature:

- -20°C to 80°C

Voltage Rating:

- 600 Volt

Product Description:

- Conductor:
Stranded Tinned Copper
- Insulation: Color-Coded PVC



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
1579	HW-C14(41)U	14	41/30	0.045	1.14	0.163	4.14	1 - 3
1651	HW-C12(65)U	12	65/30	0.045	1.14	0.181	4.59	1 - 3
1653	HW-C10(105)U	10	105/30	0.045	1.14	0.220	5.58	1 - 3
1655	HW-C8(133)U	8	133/29	0.045	1.14	0.260	6.60	1 - 3

*See color chart below

SPECIFICATIONS

- MIL-W-76B Type HW

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

PVC INSULATION

105°C, 600 VOLT

MIL-W-16878E

TYPE B

CHARACTERISTICS

Operating Temperature:

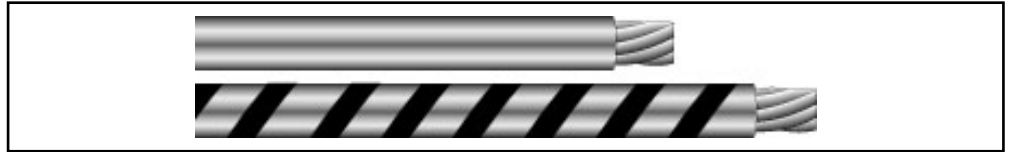
- -55°C to 105°C

Voltage Rating:

- 600 Volt

Product Description:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded PVC



SPECIFICATIONS

- MIL-W-16878E Type B

Passes
VW-1
Flame Test

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups

STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
1850	B-32	32	7/40	0.010	0.25	0.028	0.71	1 - 6
1851†	B-30	30	7/38	0.010	0.25	0.032	0.81	1 - 6
1852†	B-28	28	7/36	0.010	0.25	0.034	0.86	1 - 10
1853†	B-26	26	7/34	0.010	0.25	0.038	0.96	1 - 19
1854†	B-24	24	7/32	0.010	0.25	0.043	1.09	1 - 19
1854/19	B-24	24	19/36	0.010	0.25	0.043	1.09	1 - 19
1855†	B-22	22	7/30	0.010	0.25	0.050	1.27	1 - 10
1855/19	B-22	22	19/34	0.010	0.25	0.050	1.27	1 - 19
1856†	B-20	20	7/28	0.010	0.25	0.058	1.47	1 - 19
1856/19	B-20	20	19/32	0.010	0.25	0.058	1.47	1 - 19
1857	B-18	18	7/26	0.010	0.25	0.068	1.73	1 - 10
1857/19	B-18	18	19/30	0.010	0.25	0.068	1.73	1 - 19
1858/19	B-16	16	19/29	0.010	0.25	0.077	1.96	1 - 19
1859/19	B-14	14	19/27	0.010	0.25	0.091	2.31	1 - 10

*See color chart below

†Also meets MIL-W-76B Type LW

PVC INSULATION

105°C, 600 VOLT

UL 1015

CSA TEW-105

CHARACTERISTICS

Operating Temperature:

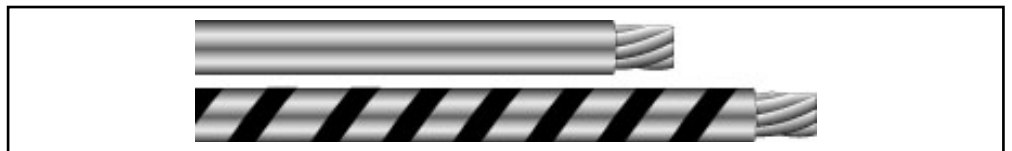
- -20°C to 105°C

Voltage Rating:

- 600 Volt

Product Description:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded PVC



SPECIFICATIONS

- UL AWM Style 1015
- CSA TEW-105

Recognized Component

Underwriters Laboratories Inc. Underwriters Laboratories Inc.

Passes
UL VW-1
Flame Test

Certified

Canadian Standards Association

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups

STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
3070	---	24	7/32	0.032	0.81	0.088	2.24	1 - 10 + 28
3071	---	22	7/30	0.032	0.81	0.094	2.38	1 - 10 + 28, 29
3073	---	20	10/30	0.032	0.81	0.100	2.54	1 - 10 + 28
3075	---	18	16/30	0.032	0.81	0.112	2.85	1 - 10 + 28, 29
3077	---	16	26/30	0.032	0.81	0.124	3.14	1 - 10 + 28, 29
3079	---	14	41/30	0.032	0.81	0.134	3.61	1 - 10 + 28, 29
3080	---	12	65/30	0.032	0.81	0.162	3.93	1 - 4
3081	---	10	105/30	0.032	0.81	0.180	4.83	1 - 4

*See color chart below

*STOCK COLOR CHART

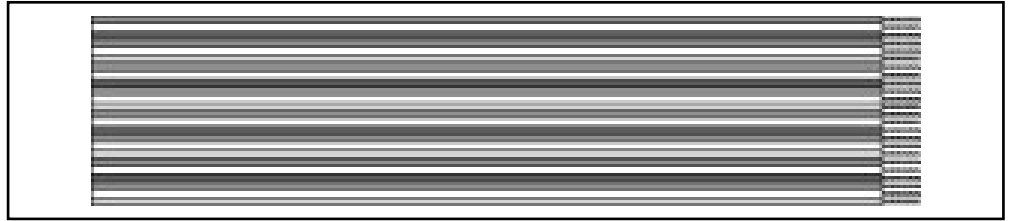
1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

PVC RIBBON CABLE

MIL-W-16878E TYPE B: 105°C, 600 VOLT
 UL 2713: 80°C, 300 VOLT
 MIL-W-16878E TYPE C: 105°C, 1000 VOLT
 UL 2555: 80°C, 300 VOLT

RIBBON CABLE

Ribbon Cable is a term that refers to a series of individually color-coded, insulated wires in a flat cable configuration. Bonded flat ribbon cables facilitate easier routing and termination and take up less space than wire harness bundles. Ribbon cable constructions are more flexible than round wire bundles. Ribbon cable constructions can safely carry more current than round harnesses of similar wire gauges and are easy to separate and route within circuits.



CHARACTERISTICS

Operating Temperature:

- -55°C to 105°C

Voltage Rating:

- Type B 600 Volt
- UL 150 Volt
- Type C 1000 Volt
- UL 300 Volt

Color Description:

- Color Code: Brown, Red, Orange, Yellow, Green, Blue, Violet, Slate, White, Black (repeat)

Product Description:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded PVC Conductors Bonded into a Flat Configuration

SPECIFICATIONS

- MIL-W-16878E Type B
- UL AWM Style 2713
- MIL-W-16878E Type C
- UL AWM Style 2555

Recognized Component
 Underwriters Laboratories Inc.

Passes UL VW-1 Flame Test
 Underwriters Laboratories Inc.

AVAILABILITY

- 100 ft (30m) put-ups

STRANDED CONDUCTOR - TYPE B

Part Number	No. of Conductors	Conductor		Insul. Thickness		Diameter (Width x Thickness)	
		AWG	Strand	Inches	mm	Inches	mm
3530	10	22	19/34	0.010	0.25	0.510 x 0.051	12.95 x 1.30
3530/7	10	22	7/30	0.010	0.25	0.510 x 0.051	12.95 x 1.30
3531	15	22	19/34	0.010	0.25	0.765 x 0.051	19.43 x 1.30
3531/7	15	22	7/30	0.010	0.25	0.765 x 0.051	19.43 x 1.30
3532	20	22	19/34	0.010	0.25	1.020 x 0.051	25.91 x 1.30
3532/7	20	22	7/30	0.010	0.25	1.020 x 0.051	25.91 x 1.30
3533	30	22	19/34	0.010	0.25	1.530 x 0.051	38.86 x 1.30
3533/7	30	22	7/30	0.010	0.25	1.530 x 0.051	38.86 x 1.30
3540	10	24	19/36	0.010	0.25	0.440 x 0.044	11.18 x 1.12
3540/7	10	24	7/32	0.010	0.25	0.440 x 0.044	11.18 x 1.12
3541	15	24	19/36	0.010	0.25	0.660 x 0.044	16.76 x 1.12
3541/7	15	24	7/32	0.010	0.25	0.660 x 0.044	16.76 x 1.12
3542	20	24	19/36	0.010	0.25	0.880 x 0.044	22.35 x 1.12
3542/7	20	24	7/32	0.010	0.25	0.880 x 0.044	22.35 x 1.12
3543	30	24	19/36	0.010	0.25	1.320 x 0.044	33.53 x 1.12
3550	10	26	7/34	0.010	0.25	0.392 x 0.039	9.96 x 0.99
3550/14	14	26	7/34	0.010	0.25	0.546 x 0.039	13.87 x 0.99
3551	15	26	7/34	0.010	0.25	0.587 x 0.039	14.91 x 0.99
3551/16	16	26	7/34	0.010	0.25	0.624 x 0.039	15.85 x 0.99
3553	30	26	7/34	0.010	0.25	1.190 x 0.039	30.23 x 0.99

STRANDED CONDUCTOR - TYPE C

Part Number	No. of Conductors	Conductor		Insul. Thickness		Diameter (Width x Thickness)	
		AWG	Strand	Inches	mm	Inches	mm
3505	5	22	7/30	0.016	0.42	0.320 x 0.065	8.13 x 1.65
3510	10	22	7/30	0.016	0.42	0.640 x 0.065	16.26 x 1.65
3515	15	22	7/30	0.016	0.42	0.960 x 0.065	24.38 x 1.65
3520	20	22	7/30	0.016	0.42	1.290 x 0.065	32.77 x 1.65

IRRADIATED PVC INSULATION

MIL-W-16878E TYPE B: 105°C, 600 VOLT
 UL 1429, CSA: 80°C, 150 VOLT
 MIL-W-16878E TYPE C: 105°C, 1000 VOLT
 UL 1430, CSA: 105°C, 300 VOLT

SOLDER IRON RESISTANT

Irradiated PVC Insulated Hook-Up Wire is exposed to controlled electron beam radiation which results in an insulation far superior to ordinary PVC.

Irradiated PVC withstands higher temperatures than ordinary PVC. Because of its ability to resist solder iron heat, it is the ideal material to use where high reliability is essential and particularly valuable in the wiring of tight, high-density systems.

Irradiated PVC insulation is tougher than ordinary PVC resulting in greatly improved abrasion and cut-through resistance.

CHARACTERISTICS

Operating Temperature:

- -55°C to 105°C - UL AWM 1430
- -55°C to 105°C - UL AWM 3317
- -55°C to 105°C - CSA AWM I A/B FT1
- -55°C to 105°C - MIL-W-16878E
- -55°C to 80°C - UL AWM 1429

Voltage Rating:

- 600 Volt (MIL), 150 Volt (UL, CSA)
- 1000 Volt (MIL), 300 Volt (UL, CSA)

Product Description:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded, Irradiated PVC (XLPVC)

SPECIFICATIONS

- UL AWM Style 1429
- UL AWM Style 1430
- UL AWM Style 3317
- CSA AWM I A/B FT1
- CSA REW XLPVC FT1
- MIL-W-16878E Type B
- MIL-W-16878E Type C

Recognized Component
 Underwriters Laboratories Inc.

Passes UL VW-1 Flame Test
 Underwriters Laboratories Inc.

CSA Certified
 Canadian Standards Association

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups



STRANDED CONDUCTOR - TYPE B

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
7053	---	26	7/34	0.010	0.25	0.040	1.02	1 - 10
7054	---	24	7/32	0.010	0.25	0.045	1.14	1 - 10
7054/19	---	24	19/36	0.010	0.25	0.045	1.14	1 - 10
7055	---	22	7/30	0.010	0.25	0.051	1.30	1 - 10
7055/19	---	22	19/34	0.010	0.25	0.052	1.32	1 - 10
7056	---	20	7/28	0.010	0.25	0.059	1.50	1 - 10
7056/19	---	20	19/32	0.010	0.25	0.060	1.52	1 - 10
7057	---	18	7/26	0.010	0.25	0.070	1.78	1 - 10
7057/19	---	18	19/30	0.010	0.25	0.070	1.78	1 - 10
7058/19	---	16	19/29	0.010	0.25	0.078	1.98	1 - 10

*See color chart below



STRANDED CONDUCTOR - TYPE C

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
7130	---	24	7/32	0.016	0.41	0.056	1.42	1 - 10, 29
7131	---	22	7/30	0.016	0.41	0.062	1.58	1 - 10
7132	---	20	7/28	0.016	0.41	0.070	1.78	1 - 10
7133	---	18	7/26	0.016	0.41	0.082	2.08	1 - 10, 29
7134	---	16	19/29	0.016	0.41	0.092	2.34	1 - 10, 29
7035†	---	14	19/27	0.016	0.41	0.107	2.72	1 - 10, 29
7036†	---	12	19/25	0.016	0.41	0.124	3.15	1 - 10, 29

*See color chart below

†UL 3317

IRRADIATED POLYOLEFIN INSULATION

MIL-W-16878E: 105°C, 600, 1000, 3000 VOLT
UL, CSA: 125°C, 150, 300, 600 VOLT

FLAME RETARDANT

The irradiated polyolefin insulation provides an ideal solution to many design problems. It is especially suitable for applications where temperatures exceed the capability of PVC, which required the use of costly fluorocarbon insulations. The radiation crosslinking process also improves other environmental characteristics while retaining the excellent electrical properties of polyolefin. This material is highly flame retardant, with a UL VW-1 rating. It is non-meltable, minimizing damage from solder iron contact. There is also greater resistance to abrasion, cut-through, and chemical attack. The irradiated polyolefin conforms to UL and Military standards. It is available in three different wall thickness constructions for a wide range of voltage capabilities.



STRANDED CONDUCTOR - TYPE B

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
7012	---	22	19/34	0.010	0.25	0.054	1.37	1, 2
7013	---	20	19/32	0.010	0.25	0.062	1.57	1, 2
7014	---	18	19/30	0.010	0.25	0.072	1.83	1, 2

*See color chart below

STRANDED CONDUCTOR - TYPE C

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
7024	---	22	19/34	0.015	0.38	0.064	1.63	1 - 3
7025	---	20	19/32	0.015	0.38	0.072	1.83	1 - 3
7026	---	18	19/30	0.015	0.38	0.082	2.08	1 - 3

*See color chart below

STRANDED CONDUCTOR - TYPE D

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
7044	---	18	16/30	0.030	0.76	0.108	2.74	1 - 3
7045	---	16	26/30	0.030	0.76	0.122	3.10	1 - 3
7046	---	14	41/30	0.030	0.76	0.139	3.53	1 - 3
7047	---	12	65/30	0.030	0.76	0.153	3.88	1 - 3
7048	---	10	105/30	0.030	0.76	0.192	4.87	1 - 3

*See color chart below

CHARACTERISTICS

Operating Temperature:

- -55°C to 105°C - MIL-W-16878E
- -55°C to 125°C - (UL, CSA 125°C)

Voltage Rating:

- MIL-W-16878E Type B:
600 Volt - UL 3265, CSA AWM I A/B FT1: 150 Volt
- MIL-W-16878E Type C:
1000 Volt - UL 3266, CSA CL 1252 XLPE: 300 Volt
- MIL-W-16878E Type D:
3000 Volt - UL 3271, CSA CL 1251 XLPE: 600 Volt

Product Description:

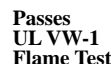
- Conductor:
Stranded Tinned Copper
- Insulation: Radiation Crosslinked Polyolefin (XLPE)

SPECIFICATIONS

- UL AWM Style 3265
- UL AWM Style 3266
- UL AWM Style 3271
- CSA AWM I A/B FT1
- CSA CL 1252 XLPE
- CSA CL 1251 XLPE
- MIL-W-16878E
Types B, C and D



Underwriters Laboratories Inc.



Underwriters Laboratories Inc.



Canadian Standards Association

AVAILABILITY

- 7012 - 7014, 7024 - 7026
1000 ft (305m) put-ups
- 7044 - 7048
100 ft (30m), 1000 ft (305m) put-ups

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

BUS BAR WIRE

MIL-W-3861 TYPE S

QQ-W-343 TYPE S

CHARACTERISTICS

Product Description:

- Conductor: Electrolytic Soft Drawn and Annealed Solid Tin Plated Copper



SPECIFICATIONS

- MIL-W-3861 Type S (Inactive Military Specification)
- QQ-W-343 Type S

SOLID CONDUCTOR									
Part Number	Nom. Circular		Conductor		Insul. Thickness		Diameter		Stock Color*
	MIL Area, CM	AWG	Strand	Inches	mm	Inches	mm		
299/3	100	30	Solid	---	---	0.010	0.25	---	
299/2	159	28	Solid	---	---	0.013	0.33	---	
299/1	253	26	Solid	---	---	0.016	0.41	---	
299	404	24	Solid	---	---	0.020	0.51	---	
298	640	22	Solid	---	---	0.025	0.64	---	
297	1020	20	Solid	---	---	0.032	0.81	---	
296	1620	18	Solid	---	---	0.040	1.02	---	
295	2580	16	Solid	---	---	0.051	1.30	---	
286	4110	14	Solid	---	---	0.064	1.62	---	
289	6530	12	Solid	---	---	0.081	2.06	---	

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups

TEST LEAD WIRE

CHARACTERISTICS

Operating Temperature:

- -30°C to 90°C

Voltage Rating:

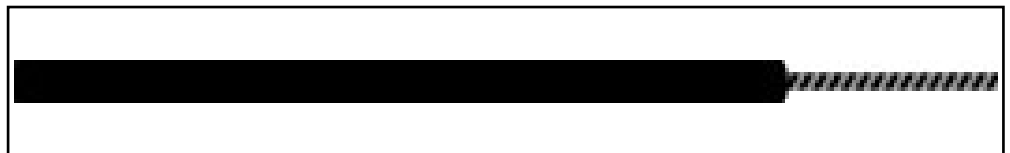
- 1500 Volt to 10,000 Volt as noted

Color Description:

- Stock Colors: Black and Red

Product Description:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded Rubber



STRANDED CONDUCTOR									
Part Number	Conductor		Insul. Thickness		Diameter		Voltage Breakdown	Sugg. Working Voltage	
	AWG	Strand	Inches	mm	Inches	mm			
1632	20	41/36	0.040	1.02	0.125	3.18	6000	1500V	
1635	20	41/36	0.047	1.19	0.140	3.56	12000	3000V	
1636	18	65/36	0.045	1.14	0.140	3.56	20000	5000V	
1638	18	65/36	0.090	2.29	0.230	5.84	29000	10000V	

AVAILABILITY

- 100 ft (30m), 500 ft (152m), 1000 ft (305m) put-ups

KYNAR† WIRE WRAP TEFZEL** WIRE WRAP

UL 1422, UL 1423: 105°C
UL 1516, UL 1523: 105°C

WIRE WRAP

Wire Wrapping is automatic or semi-automatic termination method generally used in large scale wiring of computer backpanels. It involves the helical wrapping of a solid conductor around a rectangular post under controlled tension. Kynar and Tefzel wire wrap wires are manufactured with silver-plated OFHC‡ conductors. The presence of even minute amounts of oxygen in copper can reduce conductivity and cause embrittlement when the copper is subjected to physical stress. OFHC‡ copper retains its mechanical and electrical integrity even after subject to the high forces of the wire wrapping process.

Both Kynar and Tefzel exhibit high abrasion, heat and cut-through resistance.

CHARACTERISTICS

Operating Temperature:

- Kynar Wire Wrap:
-40°C to 125°C (UL 105°C)
- Tefzel Wire Wrap:
-70°C to 150°C (UL 105°C)

Product Description:

- Conductor: Solid Silver-Plated OFHC‡ Copper
- Insulation:
Kynar Wire Wrap:
Color-Coded Kynar
(Polyvinylidene Fluoride)
Tefzel Wire Wrap:
Color-Coded Tefzel
(Ethylene-Tetrafluoroethylene Copolymer)

SPECIFICATIONS

- UL AWM Style 1422
- UL AWM Style 1423
- UL AWM Style 1516
- UL AWM Style 1523

Recognized Component
Underwriters Laboratories Inc. Passes UL VW-1 Flame Test
Underwriters Laboratories Inc.

AVAILABILITY

- Kynar Wire Wrap:
1000 ft (305m) put-ups
- Tefzel Wire Wrap:
100 ft (30m), 1000 ft (305m) put-ups



UL 1422, UL 1423: KYNAR† WIRE WRAP, 125°C

Part Number	UL Style	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
5951	1423	30	Solid	0.0045	0.11	0.020	0.51	1 - 10
5952	1422	28	Solid	0.0055	0.14	0.024	0.58	1 - 10
5953	1422	26	Solid	0.0055	0.14	0.027	0.68	1 - 10
5954	1423	24	Solid	0.0045	0.11	0.030	0.76	1 - 10

*See color chart below



UL 1516, UL 1523: TEFZEL** WIRE WRAP, 150°C

Part Number	UL Style	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
1805	1516	30	Solid	0.0045	0.11	0.020	0.51	1 - 10
1806	1523	28	Solid	0.0055	0.14	0.024	0.58	1 - 10
1807	1523	26	Solid	0.0055	0.14	0.027	0.69	1 - 10
1808	1516	24	Solid	0.0045	0.11	0.030	0.76	1 - 10

*See color chart below

†Kynar is a registered trademark of Pennwalt
**Tefzel is a registered trademark of E.I. DuPont

‡OFHC-(Oxygen-Free High Conductivity) is a registered trademark of Amax, Inc.

*STOCK COLOR CHART							
1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

TFE TEFLON® INSULATION

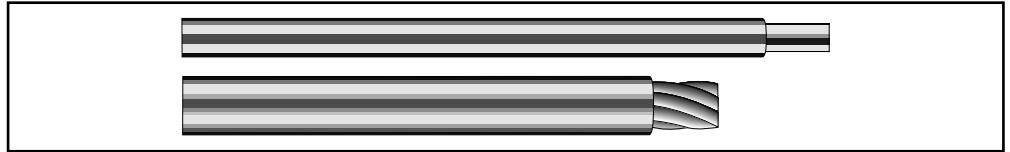
200°C, 250 VOLT

MIL-W-16878E

(TYPE ET)††

CERTIFIED PERFORMANCE - HIGH-RELIABILITY TFE TEFLON® INSULATION

TFE Teflon wire family includes a full range of sizes, colors, conductor types and voltage ratings for both commercial (UL styles) and high reliability military OEM products. TFE Teflon is rated for continuous operation in temperatures from -60°C to 200°C and retains its exceptional toughness and flexibility within this range. TFE Teflon is not degraded by chemicals which makes it ideal for use in harsh environments. Teflon is widely regarded as the ultimate high performance wire insulation material for environments characterized by extreme thermal or chemical conditions.



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
2840/7	ET-32	32	7/40	0.006	0.15	0.021	0.53	1 - 10
2841/7	ET-30	30	7/38	0.006	0.15	0.024	0.61	1 - 10
2842/7	ET-28	28	7/36	0.006	0.15	0.027	0.68	1 - 10
2842/19	ET-28	28	19/40	0.006	0.15	0.027	0.68	1 - 10
2843/7	ET-26	26	7/34	0.006	0.15	0.031	0.78	1 - 10
2843/19	ET-26	26	19/38	0.006	0.15	0.032	0.81	1 - 10
2844/7	ET-24	24	7/32	0.006	0.15	0.036	0.91	1 - 10
2844/19	ET-24	24	19/36	0.006	0.15	0.037	0.94	1 - 10
2845/7	ET-22	22	7/30	0.006	0.15	0.042	1.07	1 - 10
2845/19	ET-22	22	19/34	0.006	0.15	0.044	1.12	1 - 10

*See color chart below

SOLID CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
2841/1†	---	30	Solid	0.006	0.15	0.022	0.55	1 - 10
2842/1†	---	28	Solid	0.006	0.15	0.025	0.63	1 - 10
2843/1†	---	26	Solid	0.006	0.15	0.028	0.71	1 - 10

*See color chart below

CHOOSE FOR:

- Resistance to All Chemicals
- High Temperature (Use up to 200°C)
- Low Coefficient of Friction
- Outstanding Electrical Properties

†Not Military Approved

††All product supplied is to the MIL-W-16878 E revision. Revision F product can be supplied upon request, subject to minimum order quantity and lead time requirements.

Teflon® is a registered trademark of E.I. DuPont

APPLICATIONS:

- Military Harnessing
- Medical Electronics
- Power Supply Lead Wire
- Appliance Wiring

CHARACTERISTICS

Operating Temperature:

- -60°C to 200°C

Voltage Rating:

- 250 Volt

Product Description:

- Conductor: Stranded or Solid Silver Plated Copper
- Insulation: Color-Coded, Extruded TFE Teflon

SPECIFICATIONS

- MIL-W-16878E Type ET

Passes
VW-1
Flame Test

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups
- 1000 ft put-ups may contain multiple lengths

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

TFE TEFLON® INSULATION

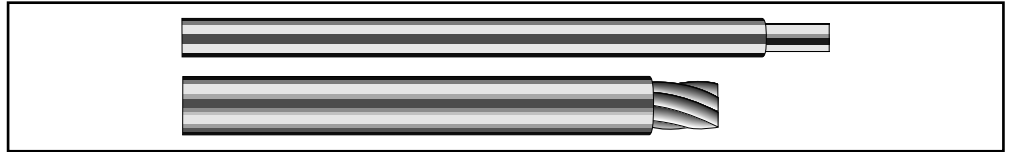
200°C, 600 VOLT

MIL-W-16878E (TYPE E)††

UL 1213

CERTIFIED PERFORMANCE - HIGH-RELIABILITY TFE TEFLON® INSULATION

TFE Teflon wire family includes a full range of sizes, colors, conductor types and voltage ratings for both commercial (UL styles) and high reliability military OEM products. TFE Teflon is rated for continuous operation in temperatures from -60°C to 200°C and retains its exceptional toughness and flexibility within this range. TFE Teflon is not degraded by chemicals which makes it ideal for use in harsh environments. Teflon is widely regarded as the ultimate high performance wire insulation material for environments characterized by extreme thermal or chemical conditions.



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
5851	E-30	30	7/38	0.010	0.25	0.032	0.81	1 - 10
5852	E-28	28	7/36	0.010	0.25	0.036	0.91	1 - 10
5853	E-26	26	7/34	0.010	0.25	0.040	1.02	1 - 10
5853/19	E-26	26	19/38	0.010	0.25	0.041	1.04	1 - 10
5854	E-24	24	19/36	0.010	0.25	0.045	1.14	1 - 10
5854/7	E-24	24	7/32	0.010	0.25	0.044	1.12	1 - 10
5855	E-22	22	19/34	0.010	0.25	0.051	1.30	1 - 10
5855/7	E-22	22	7/30	0.010	0.25	0.055	1.27	1 - 10
5856	E-20	20	19/32	0.010	0.25	0.059	1.50	1 - 10
5856/7	E-20	20	7/28	0.010	0.25	0.058	1.47	1 - 10
5857	E-18	18	19/30	0.010	0.25	0.070	1.78	1 - 10
5858	E-16	16	19/29	0.010	0.25	0.077	1.96	1 - 10
5859†	E-14	14	19/27	0.012	0.30	0.094	2.39	1
5859/12†	E-12	12	19/25	0.012	0.30	0.113	2.87	1
5859/10†	E-10	10	37/26	0.012	0.30	0.134	3.40	1

*See color chart below

SOLID CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
2853/1	---	26	Solid	0.010	0.25	0.036	0.91	1 - 10
2854/1	---	24	Solid	0.010	0.25	0.040	1.02	1 - 10
2855/1	---	22	Solid	0.010	0.25	0.045	1.14	1 - 10
2856/1	---	20	Solid	0.010	0.25	0.052	1.32	1 - 3
2857/1	---	18	Solid	0.010	0.25	0.060	1.52	1 - 3

*See color chart below

CHOOSE FOR:

- Resistance to All Chemicals
- High Temperature (Use up to 200°C)
- Low Coefficient of Friction
- Outstanding Electrical Properties

APPLICATIONS:

- Military Harnessing
- Medical Electronics
- Power Supply Lead Wire
- Appliance Wiring

†Not Military Approved

††All product supplied is to the MIL-W-16878 E revision. Revision F product can be supplied upon request, subject to minimum order quantity and lead time requirements.

Teflon® is a registered trademark of E.I. DuPont

CHARACTERISTICS

Operating Temperature:

- -60°C to 200°C (UL 105°C)

Voltage Rating:

- 600 Volt (UL: Voltage Not Specific)

Product Description:

- Conductor: Stranded or Solid Silver Plated Copper
- Insulation: Color-Coded, Extruded TFE Teflon

SPECIFICATIONS

- UL AWM Style 1213
- MIL-W-16878E Type E

Recognized Component
 Underwriters Laboratories Inc. Passes UL VW-1 Flame Test
 Underwriters Laboratories Inc.

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups
- 1000 ft put-ups may contain multiple lengths

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

TFE TEFLON® INSULATION

200°C, 1000 VOLT

MIL-W-16878E (TYPE EE)††

UL 1180

CERTIFIED PERFORMANCE - HIGH-RELIABILITY TFE TEFLON® INSULATION

TFE Teflon wire family includes a full range of sizes, colors, conductor types and voltage ratings for both commercial (UL styles) and high reliability military OEM products. TFE Teflon is rated for continuous operation in temperatures from -60°C to 200°C and retains its exceptional toughness and flexibility within this range. TFE Teflon is not degraded by chemicals which makes it ideal for use in harsh environments. Teflon is widely regarded as the ultimate high performance wire insulation material for environments characterized by extreme thermal or chemical conditions.



STRANDED CONDUCTOR

Part Number	Type Designation	Conductor		Insul. Thickness		Diameter		Stock Color*
		AWG	Strand	Inches	mm	Inches	mm	
5874	EE-24	24	19/36	0.014	0.35	0.055	1.40	1 - 10
5875	EE-22	22	19/34	0.014	0.35	0.062	1.58	1 - 10
5876	EE-20	20	19/32	0.014	0.35	0.070	1.78	1 - 10
5877	EE-18	18	19/30	0.014	0.35	0.080	2.03	1 - 10
5878	EE-16	16	19/29	0.014	0.35	0.089	2.26	1
5879	EE-14	14	19/27	0.017	0.43	0.106	2.69	1
5879/12	EE-12	12	19/25	0.017	0.43	0.124	3.15	1
5879/10	EE-10	10	37/26	0.017	0.43	0.145	3.68	1
5879/8†	EE-8	8	133/29	0.020	0.50	0.210	5.33	1

*See color chart below

†Not UL AWM 1180 - AWM 1180 requires that 18 AWG thru 10 AWG have a temperature marker.
 ††All product supplied is to the MIL-W-16878 E revision. Revision F product can be supplied upon request, subject to minimum order quantity and lead time requirements.

Teflon® is a registered trademark of E.I. DuPont

CHOOSE FOR:

- Resistance to All Chemicals
- High Temperature (Use up to 200°C)
- Low Coefficient of Friction
- Outstanding Electrical Properties

APPLICATIONS:

- Military Harnessing
- Medical Electronics
- Power Supply Lead Wire
- Appliance Wiring

CHARACTERISTICS

Operating Temperature:

- -60°C to 200°C

Voltage Rating:

- 1000 Volt (MIL), 300 Volt (UL)

Product Description:

- Conductor: Stranded Silver Plated Copper
- Insulation: Color-Coded, Extruded TFE Teflon

SPECIFICATIONS

- UL AWM Style 1180
- MIL-W-16878E Type EE

Recognized Component
 Underwriters Laboratories Inc.

Passes UL VW-1 Flame Test
 Underwriters Laboratories Inc.

AVAILABILITY

- 100 ft (30m), 1000 ft (305m) put-ups
- 1000 ft put-ups may contain multiple lengths

*STOCK COLOR CHART

1-White	4-Green	7-Brown	10-Violet (purple)	13-White/Green	16-White/Brown	19-White/Violet	30-Pink
2-Black	5-Yellow	8-Orange	11-White/Black	14-White/Yellow	17-White/Orange	28-Green/Yellow	
3-Red	6-Blue	9-Gray	12-White/Red	15-White/Blue	18-White/Gray	29-Yellow/Green	

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 Email: info@BiaGmbH.com

Weitere Typen auf Anfrage.
 Änderungen vorbehalten.
 Abmessungen in mm.

Further items on request.
 Dimensions mm. Subject
 to change without notice.

13.03.2000

AL97-161

HOOK-UP WIRE KITS

UL 1007/1569, CSA TR-64
MIL-W-76B, TYPE MW

HOOK-UP WIRE KITS

Hook-Up Wire Kits contain an assortment of 100 ft (30m) spools of hook-up wire suitable for military or UL/CSA applications. These kits have been designed for use by technicians, engineers and designers in the R & D lab or maintenance shop.

Each kit contains five spools of hook-up wire in a unique, rack-mounted, transparent dispensing tube. The tube and rack system keeps hook-up wire neat, clean and conveniently at hand.

CHOOSE FOR:

- Convenient, Wire Dispensing System
- Five Assorted Hook-Up Wire Colors
- Includes Cut and Strip Tool
- Uses Standard Hook-Up Wire Spools when Refills are Required

CHARACTERISTICS

Operating Temperature:

- -40°C to 80°C (HU-KIT-10, 30)
- -40°C to 105°C (HU-KIT-20, 40)

Voltage Rating:

- 1000 Volt (HU-KIT-10, 30)
- 300 Volt (HU-KIT-20, 40)

Product Description:

- Conductor:
Stranded Tinned Copper
- Insulation: Color-Coded PVC
- AWG Size:
22 AWG (HU-KIT-10, 20)
24 AWG (HU-KIT-10, 40)

SPECIFICATIONS

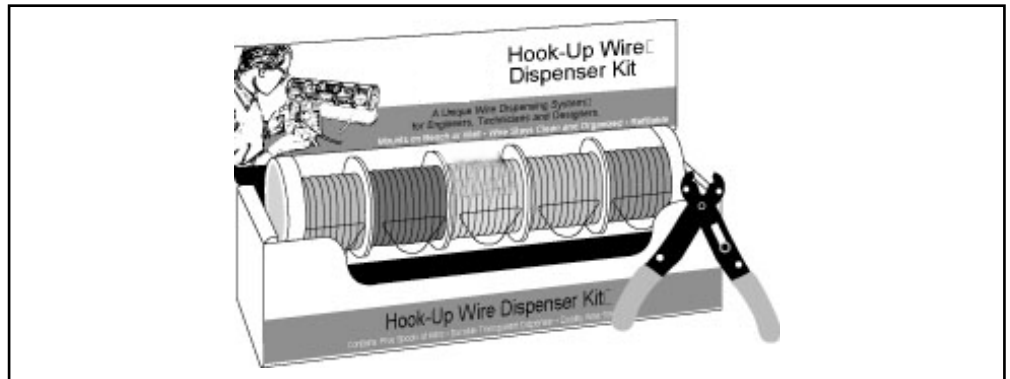
- UL AWM Styles 1007 and 1569
- CSA TR-64
- MIL-W-76B, Type MW



Underwriters Laboratories Inc. Passes UL VW-1 Flame Test



Canadian Standards Association



HU-KIT-10

Part Number	Contents	Quantity		Reorder Number
		Ft.	m	
HU-KIT-10 (22 AWG)	MIL-W-76B Type MW / White	100	30	1551
	MIL-W-76B Type MW / Black	100	30	1551
	MIL-W-76B Type MW / Red	100	30	1551
	MIL-W-76B Type MW / Green	100	30	1551
	MIL-W-76B Type MW / Blue	100	30	1551
	Cut and Strip Tool			

HU-KIT-20

Part Number	Contents	Quantity		Reorder Number
		Ft.	m	
HU-KIT-20 (22 AWG)	UL 1007/1569, CSA TR-64 / White	100	30	3051
	UL 1007/1569, CSA TR-64 / Black	100	30	3051
	UL 1007/1569, CSA TR-64 / Red	100	30	3051
	UL 1007/1569, CSA TR-64 / Green	100	30	3051
	UL 1007/1569, CSA TR-64 / Blue	100	30	3051
	Cut and Strip Tool			

HU-KIT-30

Part Number	Contents	Quantity		Reorder Number
		Ft.	m	
HU-KIT-30 (24 AWG)	MIL-W-76B Type MW / White	100	30	1550
	MIL-W-76B Type MW / Black	100	30	1550
	MIL-W-76B Type MW / Red	100	30	1550
	MIL-W-76B Type MW / Green	100	30	1550
	MIL-W-76B Type MW / Blue	100	30	1550
	Cut and Strip Tool			

HU-KIT-40

Part Number	Contents	Quantity		Reorder Number
		Ft.	m	
HU-KIT-40 (24 AWG)	UL 1007/1569, CSA TR-64 / White	100	30	3050
	UL 1007/1569, CSA TR-64 / Black	100	30	3050
	UL 1007/1569, CSA TR-64 / Red	100	30	3050
	UL 1007/1569, CSA TR-64 / Green	100	30	3050
	UL 1007/1569, CSA TR-64 / Blue	100	30	3050
	Cut and Strip Tool			