

Arctic Ultraflex Blue® Premier Arctic Grade Wire

ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue®

Arctic Ultraflex Blue® continues to be the premier **arctic grade** wire rated and proven to work in extreme temperature ranges of -55°C to 105°C (-67°F to 221°F). This highly flexible wire combines finely stranded 100% Copper construction with a durable insulation material that resists the abuses of oil, sunlight, saltwater, acids, and chemicals.

Arctic Ultraflex Blue® is highly abrasion resistant and can be used in most 600V applications. UL Recognized as AWM (Appliance Wiring Material) Style 1698.

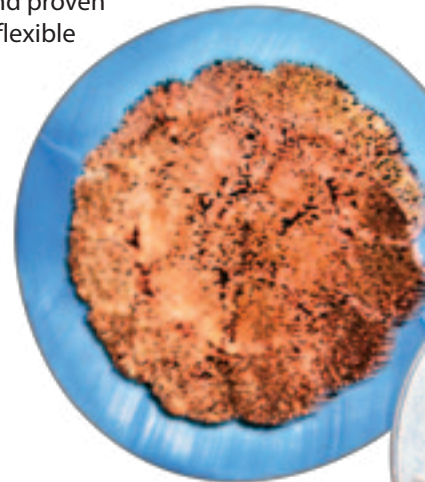
Arctic Ultraflex Blue® has numerous applications, including those approved under NEC article 400 and associated articles.

Applications

- UL 508A Industrial control panels
- Internal appliance and equipment wiring
- Inverter cables and wiring
- Industrial machines and robotics
- Construction equipment, forklifts, golf carts
- Marine, RV and automotive wiring
- Medium and heavy-duty trucks and trailers
- Load banks, motor leads, welding cable
- Batteries and chargers
- Power hookup cable



-55°C TO 105°C



Arctic Ultraflex Blue®
500 MCM - 5054/30
UL Class K Stranding
per conductor





Typical Legend E196955  AWM 500MCM OIL RESISTANT 600V VW-1 ...
ARCTIC ULTRAFLEX BLUE® -55°C TO 105°C ... CSA 234608 TEW 105°C 600V FT1



Class K Copper Stranded Construction Specifications

Size	Class K Copper Strand Qty/AWG	Class K Copper Strand Style	Nominal Conductor Outside Diameter	Insulation Thickness	Nominal Finished Outside Diameter	Ampacity* 30°C (86°F)	Ampacity* 40°C (104°F)
18 AWG	16/30	Tinned	.045"	.030"	.105" ±.003"	n/a	n/a
16 AWG	26/30	Tinned	.057"	.030"	.118" ±.003"	26	24
14 AWG	41/30	Tinned	.070"	.030"	.130" ±.003"	38	36
12 AWG	65/30	Tinned	.092"	.030"	.152" ±.005"	44	41
10 AWG	105/30	Tinned	.120"	.030"	.180" ±.005"	60	56
8 AWG	168/30	Bare	.160"	.045"	.250" ±.010"	85	81
6 AWG	266/30	Bare	.200"	.060"	.325" ±.010"	115	106
4 AWG	420/30	Bare	.250"	.060"	.375" ±.010"	150	142
2 AWG	665/30	Bare	.325"	.060"	.450" ±.010"	205	193
1 AWG	836/30	Bare	.335"	.080"	.515" ±.015"	240	223
1/0 AWG	1045/30	Bare	.385"	.080"	.550" ±.015"	285	264
2/0 AWG	1330/30	Bare	.455"	.080"	.620" ±.015"	325	304
3/0 AWG	1672/30	Bare	.480"	.080"	.650" ±.015"	380	355
4/0 AWG	2109/30	Bare	.550"	.085"	.750" ±.015"	440	411
250 MCM	2451/30	Bare	.685"	.095"	.875" ±.020"	495	461
350 MCM	3458/30	Bare	.820"	.095"	1.010" ±.020"	620	512
500 MCM	5054/30	Bare	.995"	.110"	1.220" ±.020"	760	710

*Ampacities of 600V and 1000V 105°C AWM wires in air. **Note:** Ampacities based on single conductor in free air, 30°C (86°F) or 40°C (104°F) ambient temperature as specified, 105°C (221°F) conductor temperature, per table 310-17 of the NEC (adjusted for 105°C). Free air ratings assume a one-cable diameter spacing between adjacent conductors.

Polar Wire Products is the exclusive manufacturer of

Arctic Ultraflex Blue®

Premium Arctic Grade Wire

Arctic Ultraflex Blue® Single Conductor Wire

ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue®

**Outstanding Flexibility
and Proven Performance
in Extreme Cold**



18 AWG 500'

16 AWG 500'

14 AWG 500'

12 AWG 500'

10 AWG 500'

18 AWG 1000'

12 AWG 1000'

18 AWG 100'

16 AWG 100'

14 AWG 100'

12 AWG 100'

10 AWG 100'

18 AWG 35'

16 AWG 30'

14 AWG 20'

12 AWG 15'

10 AWG 10'

**Large spools and
bulk quantities available**

- 100% copper flexible fine strand conductors are tinned for corrosion resistance and conductivity
- Ultraflexible, highly abrasion resistant insulation withstands water, oil, salt, chemicals, and sunlight
- Rated for -55°C to 105°C (-67°F to 221°F)
- Tested and proven in the harsh arctic environment of Alaska's North Slope

RoHS compliant

UL CSA -55°C TO 105°C

Single Conductor Wire 10 – 18 AWG

Arctic Ultraflex Blue® Finely Stranded Class K Tinned Copper

Bulk quantities available upon request

AWG	Stocked Wire Color	5000' Spool Part Number	2500' Spool Part Number	500' Spool Part Number	100' Spool Part Number	Clamshell Package Part Number	Length
18	Black	AUF-18BLK	-	AUF-18BLK-500	AUF-18BLK-100	BP-18BLK	35'
18	Blue	AUF-18BLU	-	AUF-18BLU-500	AUF-18BLU-100	BP-18BLU	35'
18	Brown	AUF-18BRN	-	AUF-18BRN-500	AUF-18BRN-100	BP-18BRN	35'
18	Green	AUF-18GRN	-	AUF-18GRN-500	AUF-18GRN-100	BP-18GRN	35'
18	Gray	AUF-18GRY	-	AUF-18GRY-500	AUF-18GRY-100	BP-18GRY	35'
18	Orange	AUF-18ORG	-	AUF-18ORG-500	AUF-18ORG-100	BP-18ORG	35'
18	Red	AUF-18RED	-	AUF-18RED-500	AUF-18RED-100	BP-18RED	35'
18	White	AUF-18WHT	-	AUF-18WHT-500	AUF-18WHT-100	BP-18WHT	35'
18	Yellow	AUF-18YEL	-	AUF-18YEL-500	AUF-18YEL-100	BP-18YEL	35'
16	Black	AUF-16BLK	-	AUF-16BLK-500	AUF-16BLK-100	BP-16BLK	30'
16	Blue	AUF-16BLU	-	AUF-16BLU-500	AUF-16BLU-100	BP-16BLU	30'
16	Brown	AUF-16BRN	-	AUF-16BRN-500	AUF-16BRN-100	BP-16BRN	30'
16	Green	AUF-16GRN	-	AUF-16GRN-500	AUF-16GRN-100	BP-16GRN	30'
16	Gray	AUF-16GRY	-	AUF-16GRY-500	AUF-16GRY-100	BP-16GRY	30'
16	Orange	AUF-16ORG	-	AUF-16ORG-500	AUF-16ORG-100	BP-16ORG	30'
16	Red	AUF-16RED	-	AUF-16RED-500	AUF-16RED-100	BP-16RED	30'
16	White	AUF-16WHT	-	AUF-16WHT-500	AUF-16WHT-100	BP-16WHT	30'
16	Yellow	AUF-16YEL	-	AUF-16YEL-500	AUF-16YEL-100	BP-16YEL	30'
14	Black	AUF-14BLK	-	AUF-14BLK-500	AUF-14BLK-100	BP-14BLK	20'
14	Blue	AUF-14BLU	-	AUF-14BLU-500	AUF-14BLU-100	BP-14BLU	20'
14	Brown	AUF-14BRN	-	AUF-14BRN-500	AUF-14BRN-100	BP-14BRN	20'
14	Green	AUF-14GRN	-	AUF-14GRN-500	AUF-14GRN-100	BP-14GRN	20'
14	Gray	AUF-14GRY	-	AUF-14GRY-500	AUF-14GRY-100	BP-14GRY	20'
14	Orange	AUF-14ORG	-	AUF-14ORG-500	AUF-14ORG-100	BP-14ORG	20'
14	Purple	AUF-14PUR	-	AUF-14PUR-500	AUF-14PUR-100	BP-14PUR	20'
14	Red	AUF-14RED	-	AUF-14RED-500	AUF-14RED-100	BP-14RED	20'
14	White	AUF-14WHT	-	AUF-14WHT-500	AUF-14WHT-100	BP-14WHT	20'
14	Yellow	AUF-14YEL	-	AUF-14YEL-500	AUF-14YEL-100	BP-14YEL	20'
12	Black	-	AUF-12BLK	AUF-12BLK-500	AUF-12BLK-100	BP-12BLK	15'
12	Blue	-	AUF-12BLU	AUF-12BLU-500	AUF-12BLU-100	BP-12BLU	15'
12	Brown	-	AUF-12BRN	AUF-12BRN-500	AUF-12BRN-100	BP-12BRN	15'
12	Green	-	AUF-12GRN	AUF-12GRN-500	AUF-12GRN-100	BP-12GRN	15'
12	Gray	-	AUF-12GRY	AUF-12GRY-500	AUF-12GRY-100	BP-12GRY	15'
12	Orange	-	AUF-12ORG	AUF-12ORG-500	AUF-12ORG-100	BP-12ORG	15'
12	Purple	-	AUF-12PUR	AUF-12PUR-500	AUF-12PUR-100	BP-12PUR	15'
12	Red	-	AUF-12RED	AUF-12RED-500	AUF-12RED-100	BP-12RED	15'
12	White	-	AUF-12WHT	AUF-12WHT-500	AUF-12WHT-100	BP-12WHT	15'
12	Yellow	-	AUF-12YEL	AUF-12YEL-500	AUF-12YEL-100	BP-12YEL	15'
10	Black	-	AUF-10BLK	AUF-10BLK-500	AUF-10BLK-100	BP-10BLK	10'
10	Blue	-	AUF-10BLU	AUF-10BLU-500	AUF-10BLU-100	BP-10BLU	10'
10	Brown	-	AUF-10BRN	AUF-10BRN-500	AUF-10BRN-100	BP-10BRN	10'
10	Green	-	AUF-10GRN	AUF-10GRN-500	AUF-10GRN-100	BP-10GRN	10'
10	Gray	-	AUF-10GRY	AUF-10GRY-500	AUF-10GRY-100	BP-10GRY	10'
10	Orange	-	AUF-10ORG	AUF-10ORG-500	AUF-10ORG-100	BP-10ORG	10'
10	Red	-	AUF-10RED	AUF-10RED-500	AUF-10RED-100	BP-10RED	10'
10	White	-	AUF-10WHT	AUF-10WHT-500	AUF-10WHT-100	BP-10WHT	10'
10	Yellow	-	AUF-10YEL	AUF-10YEL-500	AUF-10YEL-100	BP-10YEL	10'

Red and Black 14, 16, and 18 AWG are also stocked in 1000' spools, other colors on request

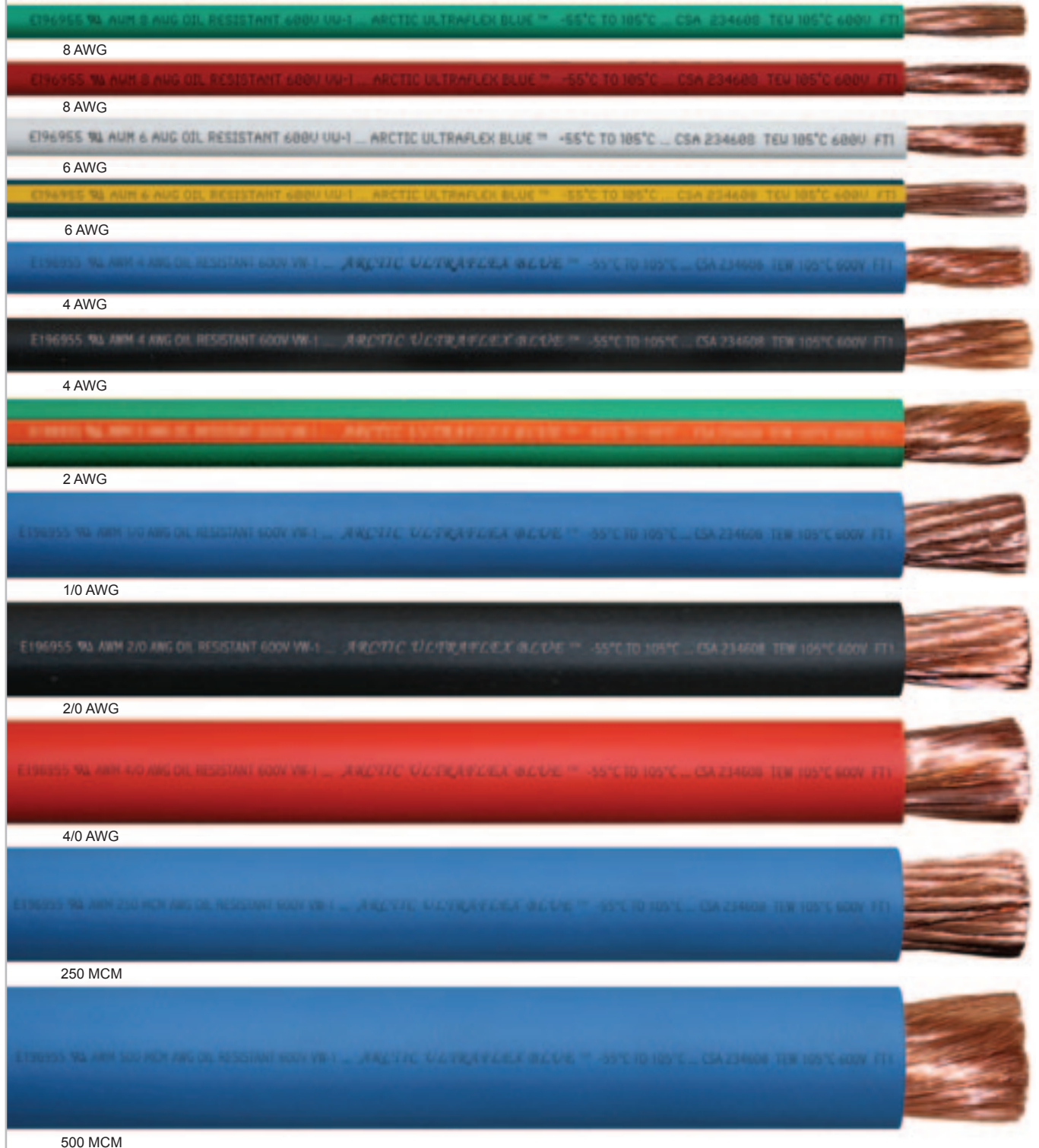
ARCTIC ULTRAFLEX BLUE®



Arctic Ultraflex Blue® Single Conductor Wire

ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue®



Single Conductor Wire 8 AWG – 500 MCM

Arctic Ultraflex Blue® Wire Colors

8 AWG through 500 MCM is sold by the foot—coiled in lengths up to 100', and spooled in lengths over 100'.

Part Number	Size	Stocked Wire Color
AUF-8BLK	8 AWG	● Black
AUF-8BLU	8 AWG	● Blue
AUF-8RED	8 AWG	● Red
AUF-8WHT	8 AWG	○ White
AUF-8GRN	8 AWG	● Green
AUF-8GRN/YEL	8 AWG	● Green/Yellow Stripe
AUF-6BLK	6 AWG	● Black
AUF-6BLU	6 AWG	● Blue
AUF-6RED	6 AWG	● Red
AUF-6WHT	6 AWG	○ White
AUF-6GRN	6 AWG	● Green
AUF-6GRN/ORG	6 AWG	● Green/Orange Stripe
AUF-4BLK	4 AWG	● Black
AUF-4BLU	4 AWG	● Blue
AUF-4RED	4 AWG	● Red
AUF-4WHT	4 AWG	○ White
AUF-4GRN	4 AWG	● Green
AUF-4GRN/YEL	4 AWG	● Green/Yellow Stripe
AUF-2BLK	2 AWG	● Black
AUF-2BLU	2 AWG	● Blue
AUF-2RED	2 AWG	● Red
AUF-2WHT	2 AWG	○ White
AUF-2GRN	2 AWG	● Green
AUF-2GRN/ORG	2 AWG	● Green/Orange Stripe
AUF-2GRN/YEL	2 AWG	● Green/Yellow Stripe
AUF-1BLK	1 AWG	● Black
AUF-1RED	1 AWG	● Red
AUF-1/0BLK	1/0 AWG	● Black
AUF-1/0BLU	1/0 AWG	● Blue
AUF-1/0RED	1/0 AWG	● Red
AUF-2/0BLK	2/0 AWG	● Black
AUF-2/0BLU	2/0 AWG	● Blue
AUF-2/0RED	2/0 AWG	● Red
AUF-3/0BLK	3/0 AWG	● Black
AUF-3/0RED	3/0 AWG	● Red
AUF-4/0BLK	4/0 AWG	● Black
AUF-4/0BLU	4/0 AWG	● Blue
AUF-4/0RED	4/0 AWG	● Red
AUF-250MCM	250 MCM	● Blue
AUF-500MCMBLK	500 MCM	● Black
AUF-500MCMBLU	500 MCM	● Blue



-55°C TO 105°C

Custom colors and striping available on request — minimums apply

WIRE STRANDING COMPARISON CHART

Polar Wire Standard

Class B Stranding	OD	Class C Stranding	OD	Class G Stranding	OD	Class H Stranding	OD	Class I Stranding	OD	Class K Stranding	OD	Class M Stranding	OD	Locomotive Cable Stranding	OD
2/0 / 19	.4205	2/0 / 37	.3750	1/0 / 133	.4240	1/0 / 259	.4240	N/A	-	N/A	-	1/0 / 2646	.4310	1/0 / 275	.4200
3/0 / 19	.4700	3/0 / 37	.4700	2/0 / 133	.4740	2/0 / 259	.4770	1/0 / 266	.4320	1/0 / 1045	.3850	N/A	-	2/0 / 325	.4600
4/0 / 19	.5280	4/0 / 37	.5300	3/0 / 133	.5330	3/0 / 259	.5330	2/0 / 342	.4700	2/0 / 1330	.4550	2/0 / 3325	.4600	N/A	-
250 MCM / 37	.5720	250 MCM / 61	.5760	N/A	-	N/A	-	3/0 / 418	.5450	3/0 / 1672	.4800	3/0 / 4256	.5750	3/0 / 450	.5650
350 MCM / 37	.6850	350 MCM / 61	.6813	250 MCM / 259	.6500	250 MCM / 427	.6530	250 MCM / 637	.6800	4/0 / 2109	.5500	4/0 / 5320	.6450	262.6 MCM / 650	.6500
400 MCM / 37	.8250	400 MCM / 61	.7290	300 MCM / 259	.7140	300 MCM / 427	.7160	300 MCM / 735	.7218	250 MCM / 2451	.6850	250 MCM / 6384	.6480	313.1 MCM / 775	.7100
500 MCM / 37	.8100	500 MCM / 61	.8145	350 MCM / 259	.7730	350 MCM / 427	.7720	350 MCM / 882	.8830	300 MCM / 2989	.7700	300 MCM / 7581	.8108	N/A	-
N/A	-	N/A	-	400 MCM / 259	.8260	400 MCM / 427	.8260	400 MCM / 980	.8380	350 MCM / 3458	.8200	350 MCM / 8806	.8822	373.7 MCM / 925	1.140
700 MCM / 61	.9640	700 MCM / 91	.9647	500 MCM / 259	.9220	500 MCM / 427	.9230	500 MCM / 1225	.9400	450 MCM / 4522	1.008	450 MCM / 11396	.9400	535.3 MCM / 1325	1.320
750 MCM / 61	.9980	750 MCM / 91	.9988	550 MCM / 427	.9230	550 MCM / 703	.9910	550 MCM / 1372	.9910	500 MCM / 5054	1.022	500 MCM / 12691	.9970	N/A	-
N/A	-	N/A	-	600 MCM / 427	.9690	600 MCM / 703	1.022	600 MCM / 1470	1.101	550 MCM / 5453	1.099	550 MCM / 13664	1.198	646.4 MCM / 1600	1.450
1000 MCM / 61	1.160	1000 MCM / 91	1.208	750 MCM / 427	1.131	750 MCM / 703	1.320	650 MCM / 1596	1.089	600 MCM / 5985	1.160	600 MCM / 14945	1.280	N/A	-

Arctic Ultraflex Blue® Power Cord

ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue®

**100% Copper Conductors for Reliable Portable Power
Stays Flexible and Easy to Handle to -50°C**

Polar Wire **Power Cord** provides mechanical toughness and flexibility in cold conditions down to -50°C (-58°F). The SEOOW **Arctic Ultraflex Blue®** insulation remains flexible and won't become stiff or crack, even in these extreme temperatures. **Arctic Ultraflex Blue®** has excellent abrasion resistance and withstands oils, greases, gas, salt, sunlight, and chemicals.

Typical applications include power and lighting for construction sites and wiring for industrial machines, large appliances, heavy duty tools, and motors. Suitable for indoor and outdoor use, wet locations, and water submersion. 600 Volts.



Features

- Flexible, tough TPE jacket
- Works under temperature extremes of -50°C to 105°C (-58°F to 221°F)
- Color coded conductors for easy identification
- Ozone, sunlight, water resistant with high dielectric insulation
- Excellent abrasion and cut resistance
- Water and mold resistant non-wicking polypropylene fillers
- Lightweight, long lasting, easy to carry and handle
- All components are recyclable and non-hazardous for environmental landfill disposal

Industry Approvals

- UL Listed SEOOW 600V for NEC Article 400
- CSA Certified STOOO (TPE) -50°C to 105°C
- P-241-3-MSHA approval for flame resistance and mining applications
- Federal and Military use under Federal Spec. JC-580B



Applications

- Suitable for and approved for submersion in water
- Special uses requiring flexibility and mechanical toughness, high environmental resistance and flame retardance
- Motor control, stage equipment and lighting
- Pendant push button remote controls
- Industrial control and robotic systems
- Machine and power tools
- Portable power
- Dockside power applications
- Mining and outdoor applications



-50°C TO 105°C



Power Cord (-50°C to 105°C)

600V Power Cord 18 – 4 AWG

Part Number	Gauge/Number of Conductors	Stranding Quantity/AWG	Nominal Outside Diameter	Amps**
AUF-182*	18/2	16/30	.345"	10
AUF-183*	18/3	16/30	.365"	10
AUF-184*	18/4	16/30	.395"	7
AUF-185*	18/5	16/30	.465"	5.6
AUF-162*	16/2	26/30	.370"	13
AUF-163	16/3	26/30	.390"	13
AUF-164*	16/4	26/30	.420"	10
AUF-165*	16/5	26/30	.495"	8
AUF-142*	14/2	41/30	.505"	18
AUF-143	14/3	41/30	.525"	18
AUF-144*	14/4	41/30	.575"	15
AUF-145*	14/5	41/30	.652"	12
AUF-122*	12/2	65/30	.570"	25
AUF-123	12/3	65/30	.595"	25
AUF-124*	12/4	65/30	.645"	20
AUF-125*	12/5	65/30	.710"	16
AUF-102*	10/2	104/30	.655"	30
AUF-103	10/3	104/30	.662"	30
AUF-104*	10/4	104/30	.705"	25
AUF-105*	10/5	104/30	.771"	20
AUF-84*	8/4	7x24/30	.929"	35
AUF-64*	6/4	7x37/30	1.038"	45
AUF-44*	4/4	7x60/30	1.232"	60

*Special order (minimums apply)

**Ampacity based on NEC Table 400.5 (A) and CEC Table 12

Note: The ampacity chart is provided for engineering information only. Polar Wire Products, Inc. cannot recommend or express the use of these ampacities since the exact application may need approval from the authority having local jurisdiction. This information is subject to engineering changes. Cold temperature rating is -50°C.

Jacket Color Blue

Conductors 18 to 10 AWG Stranded Bare Copper

Conductor 2/C – black, white

Colors 3/C – black, white, green

4/C – black, white, red, green

5/C – black, white, red, green, orange

Typical *Arctic Ultraflex Blue®*

Legend E224869 16 AWG (1.31mm2)

2/C SEOW (UL) 600V 105C

(-50C) -- CSA 265576 SEOW 600V

105C (-50C) FT2 WATER RESISTANT

3-Conductor 16, 14, 12, and 10 AWG Power Cord fully stocked
Supplies may be limited on other sizes and configurations

Please call for availability



ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue® Extension Cords

ARCTIC ULTRAFLEX BLUE®

Arctic Ultraflex Blue®

Designed for Unbeatable Performance in the Most Demanding Conditions

Tough, durable Polar Wire **Extension Cords** are designed for ease of handling and superior performance in cold weather applications. The SEOOW **Arctic Ultraflex Blue®** jacket remains flexible to -50°C (-58°F) and won't become stiff or crack, even in extreme temperatures. **Arctic Ultraflex Blue®** has excellent abrasion resistance and withstands oils, greases, gas, salt, sunlight, and chemicals. Clear NEMA 5-15 and 5-20 molded ends with steel retention rings light arctic blue to provide instant power verification. Polar Wire extension cords are available in a variety of length and gauge configurations, or specify custom sizes and colors to suit your needs.

- Our rugged cords **OUTPERFORM** and **OUTLAST** the imitators
- Proven dependable in the worst winter weather
- Industrial grade, contractor quality
- Heavy duty molded-in blades fit tightly so water won't penetrate
- **Arctic Ultraflex Blue®** power cords are exceptionally easy to handle—won't tangle or kink



Typical Cord Legend

Arctic Ultraflex Blue® E224869
W 12 AWG (3.31mm²) 3/C SEOOW (UL)
600V 105C (-50C) -- CSA 265576 SEOOW
600V 105C (-50C) FT2 WATER-RESISTANT

Features

- Superior flexibility in -50°C to 105°C (-58°F to 221°F)
- Class K fine stranded copper construction
- Resists oil, grease, chemicals, abrasion, sunlight and weather
- Clear NEMA 5-15 and 5-20 molded ends light when energized
- Steel retention rings provide extra security and strain relief
- Reinforced blades and pins
- UL and CSA Approved
- Flame retardant (VW-1)
- Environmentally safe
- Made in the USA



NEMA 5-15 Extension Cords

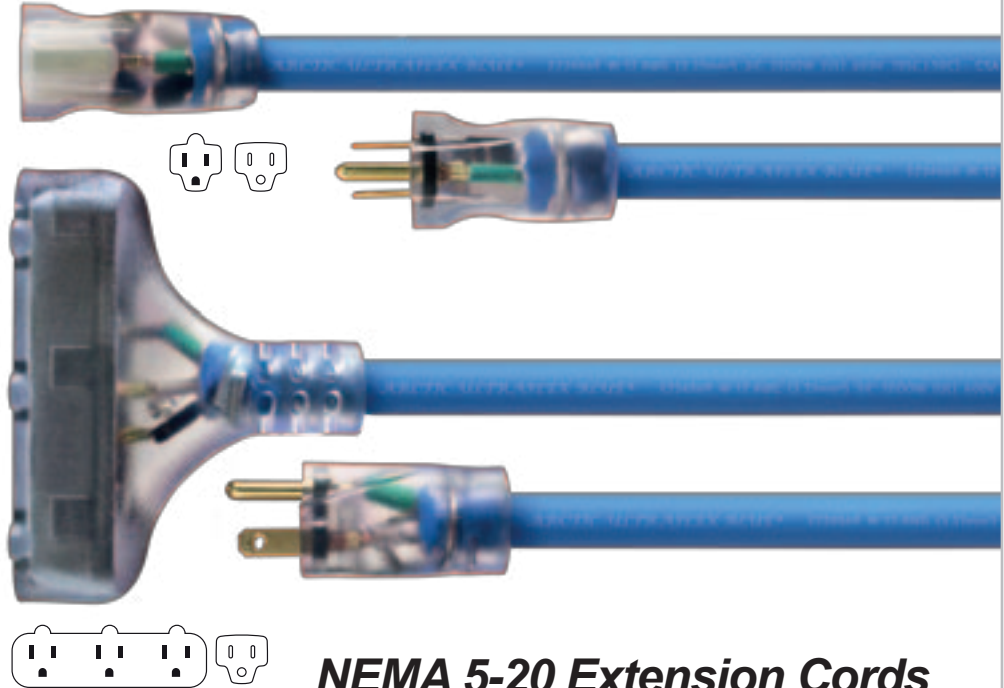
Single Outlet NEMA 5-15

Part Number	AWG	Length
AUF-PC12-10	12	10'
AUF-PC12-25	12	25'
AUF-PC12-50	12	50'
AUF-PC12-100	12	100'
AUF-PC14-10*	14	10'
AUF-PC14-25	14	25'
AUF-PC14-50	14	50'
AUF-PC14-100*	14	100'
AUF-PC16-10*	16	10'
AUF-PC16-25*	16	25'
AUF-PC16-50*	16	50'

*Special order (minimums apply)

Triple Outlet NEMA 5-15

Part Number	AWG	Length
AUF-PCT12-3	12	3'
AUF-PCT12-10	12	10'
AUF-PCT12-25	12	25'
AUF-PCT12-50	12	50'
AUF-PCT12-100	12	100'



NEMA 5-20 Extension Cords

Single Outlet NEMA 5-20

Part Number	AWG	Length
AUF-PC10-25	10	25'
AUF-PC10-50	10	50'
AUF-PC10-100	10	100'



-50°C TO 105°C



Configured for 20 Amp outlet
Does not fit in standard wall outlet



Arctic Ultraflex Blue®
is used extensively on
Alaska's Arctic North Slope

