Arctic Ultraflex Blue®

ORDER ONLINE

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. This highly flexible wire combines finely stranded copper construction with a jacket material that resists the abuses of oil, gasoline, sunlight, saltwater, acids, and chemicals.

Arctic Ultraflex Blue® has high abrasion resistance and can be used in most 600 VOLT applications. UL Listed as AWM (Appliance Wiring Material).

Arctic Ultraflex Blue® is available in a multitude of primary colors, gauges, and configurations.

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
- Marine, RV and automotive wiring
- Medium and heavy-duty trucks and trailers
- Load banks, motor leads, welding cable
- Forklifts and golf carts
- Batteries and chargers
- Power hookup cable

-55°C TO 105°C

Insulation Properties

Properties	Test Method	Performance
Specific Gravity (±.02)	ASTM D-792	1.30
Durometer Shore "A" (±.02) INST./15 seconds	ASTM D-2240	77/65
Tensile Strength (60 mil)	ASTM D-412	2000
Elongation (%)	ASTM D-412	300
Brittle Point (C)	ASTM D-746	-55°C
Oxygen Index %	ASTM D-2863	25.0
Oil Aged 18 Hours @ 121°C		
% Retention of Tensiles	UL Standard	129%
% Retention of Elongation	UL Standard	72%
Air Aged 7 Days @ 136°C		
% Retention of Tensiles	ASTM D412-80	109%
% Retention of Elongation	ASTM D412-80	100%
Oil Aged 7 Days @ 60°C		
% Retention of Tensiles	ASTM D412-80	124%
% Retention of Elongation	ASTM D412-80	89%
VW-1 Flame Test	UL Standard	Pass
Product Cold Bend Test	UL Standard	Pass
Voltage Rating	UL Standard	600

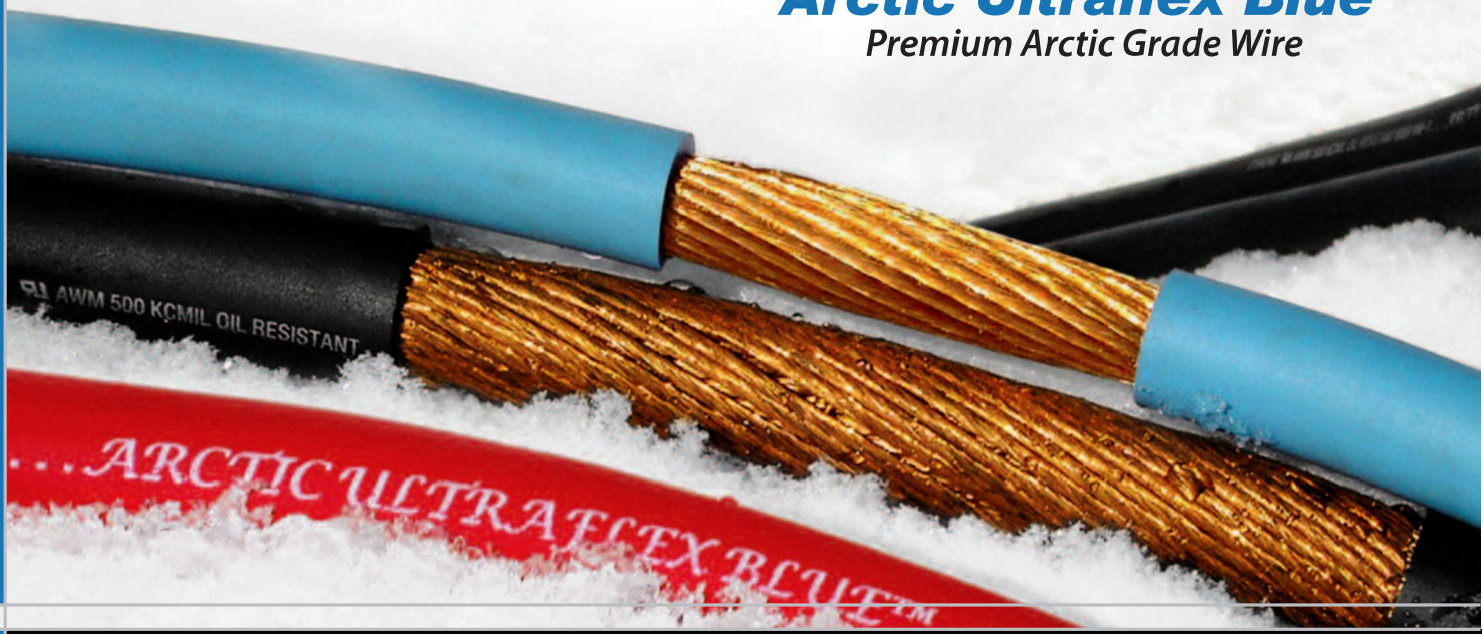
Typical Legend

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

Polar Wire Products, Inc. is the exclusive manufacturer of

Arctic Ultraflex Blue®

Premium Arctic Grade Wire



Class K Copper Stranded Construction Specifications

Size	Class K Copper Stranding	Strand Style	Nominal Conductor Outside Diameter	Insulation Thickness	Minimum Finished Outside Diameter	Ampacity* 30°C (86°F)	Ampacity* 40°C (104°F)
18 AWG	(16/30)	Tinned Copper	.047"	.030"	.105"	n/a	n/a
16 AWG	(26/30)	Tinned Copper	.059"	.030"	.118"	26	24
14 AWG	(41/30)	Tinned Copper	.074"	.030"	.130"	38	36
12 AWG	(65/30)	Tinned Copper	.093"	.030"	.150"	44	41
10 AWG	(105/30)	Tinned Copper	.118"	.030"	.180"	60	56
8 AWG	(168/30)	Bare Copper	.150"	.045"	.240"	85	81
6 AWG	(266/30)	Bare Copper	.190"	.060"	.310"	115	106
4 AWG	(420/30)	Bare Copper	.240"	.060"	.360"	150	142
2 AWG	(665/30)	Bare Copper	.310"	.060"	.430"	205	193
1 AWG	(836/30)	Bare Copper	.335"	.080"	.495"	240	223
1/0 AWG	(1064/30)	Bare Copper	.390"	.080"	.550"	285	264
2/0 AWG	(1330/30)	Bare Copper	.435"	.080"	.600"	325	304
3/0 AWG	(1672/30)	Bare Copper	.490"	.080"	.650"	380	355
4/0 AWG	(2109/30)	Bare Copper	.530"	.085"	.710"	440	411
250 MCM	(2527/30)	Bare Copper	.685"	.095"	.875"	495	461
350 MCM	(3458/30)	Bare Copper	.820"	.095"	1.010"	620	512
500 MCM	(5054/30)	Bare Copper	.995"	.110"	1.220"	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.*