

# Customer Specification

## PART NO. 45070/20

### Construction

						Diameters (In)	
1) Component 1						20 X 1 COND	
a) Conductor						18 (16/30) AWG Tinned Copper	0.047
b) Insulation						0.016" Wall, Nom. TPE	0.079
(1) Color Code						Alpha Wire Color Code D	
Cond	Color	Cond	Color	Cond	Color		
1	BLACK	8	YELLOW	15	RED/BLACK		
2	RED	9	VIOLET	16	WHITE/BLACK		
3	WHITE	10	SLATE	17	WHITE/RED		
4	GREEN	11	PINK	18	WHITE/GREEN		
5	ORANGE	12	TAN	19	WHITE/YELLOW		
6	BLUE	13	RED/GREEN	20	WHITE/BLUE		
7	BROWN	14	RED/YELLOW				
2) Cable Assembly						20 Components Cabled	
a) Twists:						2.0 Twists/foot (min)	
b) Orientation:						Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap						Nonwoven Polyester Tape, 20% Overlap, Min.	
3) Jacket						0.055" Wall, Nom., TPE	0.530 (0.552 Max.)
a) Color(s)						Slate, Black, Yellow, Orange, Blue, Green, Red, Sand Beige, White	
b) Ripcord						1 End 810 Denier Nylon	
c) Print						ALPHA WIRE-* P/N 45070/20 20C 18 AWG XTRAGUARD(R) 4 (UL) TYPE PLTC 105C SUN RES OR AWM 21916 125C 300 V OR CRU AWM I/II A/B 125C 300V FT1 P-07-KA140023-MSHA CE ROHS (SEQ FOOTAGE) * = Factory Code	

### Applicable Specifications

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1) UL	AWM/STYLE 21916	125°C / 300 V <sub>RMS</sub>
	PLTC	105°C
	SUN RES	
2) CSA International	C(RU) AWM I/II A/B FT1	125°C / 300 V <sub>RMS</sub>
	SUN RES (Black only)	
3) Other	PENNSYLVANIA BUREAU OF MINE SAFETY APPROVED	
4) CE:	EU Low Voltage Directive 2014/35/EU	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015 . No Exemptions are required for RoHS Compliance on this item.
2) REACH Regulation (EC 1907/2006):	
	This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item.
3) California Proposition 65:	
	This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on the Consent Judgement. See the Alpha Wire website for more information.

## Properties

<b>Physical &amp; Mechanical Properties</b>	
1) Temperature Range	-50 to 125°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	251 Lbs, Maximum
4) Sunlight Resistance	Yes
<b>Electrical Properties</b>	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	17 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Inductance	0.18 μH/ft, Nominal
4) Conductor DCR	7.1 Ω/1000ft @20°C, Nominal

## Other

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<b>Packaging</b>	Flange x Traverse x Barrel (inches)
a) Bulk(Made-to-order)	
<b>Notes:</b>	
a) Print legend will contain CSA SUN RES on black cables only.	

[www.alphawire.com](http://www.alphawire.com)

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374

Tel: 1-800-52 ALPHA

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 45070/20

45070/20, RoHS-Compliant Commencing With 01/10/2014 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Union (RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This document is in compliance with the list of restricted substances to 10 items (commonly known as RoHS 3). The reader is referred to these Directives for the specific definitions and restrictions. **Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control" requirements.

## Substance

Lead  
Mercury  
Cadmium  
Hexavalent Chromium  
Polybrominated Biphenyls (PBB)  
Polybrominated Diphenyl Ethers (PBDE),  
Including Deca-BDE  
Bis(2-ethylhexyl) phthalate (DEHP)  
Butyl benzyl phthalate (BBP)  
Dibutyl phthalate (DBP)  
Diisobutyl phthalate (DIBP)

## Maximum Control Value

0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.01% by weight (100 ppm)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
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The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of issuance. This document is intended to provide guidance for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulatory requirements. Alpha Wire is an Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA 01/04/2025

Alpha Wire  
711 Lidgerwood Ave.  
Elizabeth, NJ 07207  
Tel: 1-908-925-8000