

## Customer Specification

### PART NO. 5110/80C

### Construction

						Diameters (In)	
1) Component 1						80 X 1 COND	
a) Conductor						22 (7/30) AWG Tinned Copper	0.030
b) Insulation						0.010" Wall, Nom. PVC, Semi Rigid	0.050
(1) Color Code						Alpha Wire Color Code E	
Cond	Color	Cond	Color	Cond	Color		
1	BLACK	28	WHITE/BR	55	WHITE/VIC		
2	BROWN	29	WHITE/BR	56	WHITE/BLA		
3	RED	30	WHITE/BR	57	WHITE/BLA		
4	ORANGE	31	WHITE/BR	58	WHITE/BLA		
5	YELLOW	32	WHITE/BR	59	WHITE/BLA		
6	GREEN	33	WHITE/BR	60	WHITE/BLA		
7	BLUE	34	WHITE/BR	61	WHITE/BLA		
8	VIOLET	35	WHITE/REI	62	WHITE/BLA		
9	SLATE	36	WHITE/REI	63	WHITE/BLA		
10	WHITE	37	WHITE/REI	64	WHITE/BLA		
11	WHITE/BL	38	WHITE/REI	65	WHITE/BLA		
12	WHITE/BR	39	WHITE/REI	66	WHITE/BLA		
13	WHITE/RE	40	WHITE/REI	67	WHITE/BLA		
14	WHITE/OR	41	WHITE/OR	68	WHITE/BLA		
15	WHITE/YE	42	WHITE/OR	69	WHITE/BLA		
16	WHITE/GR	43	WHITE/OR	70	WHITE/BLA		
17	WHITE/BLI	44	WHITE/OR	71	WHITE/BLA		
18	WHITE/VIC	45	WHITE/OR	72	WHITE/BLA		
19	WHITE/SL	46	WHITE/YEI	73	WHITE/BLA		
20	WHITE/BL	47	WHITE/YEI	74	WHITE/BLA		
21	WHITE/BL	48	WHITE/YEI	75	WHITE/BLA		
22	WHITE/BL	49	WHITE/YEI	76	WHITE/BLA		
23	WHITE/BL	50	WHITE/GR	77	WHITE/BLA		
24	WHITE/BL	51	WHITE/GR	78	WHITE/BLA		
25	WHITE/BL	52	WHITE/GR	79	WHITE/BLA		
26	WHITE/BL	53	WHITE/BLI	80	WHITE/BLA		
27	WHITE/BL	54	WHITE/BLI				
2) Cable Assembly						80 Components Cabled	
a) Twists:						1.5 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) Shield:	A/P/A Tape, 20% Overlap, Min.	
a) Drain Wire	22 (7/30) AWG Tinned Copper	
b) Braid	Tinned Copper, 70% Coverage, Nom.	
4) Jacket	0.053" Wall, Nom., PVC	0.665 (0.698 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 5110/80C 80C 22 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C SUN RES OR AWM 2464 80C 300V OR AWM 2517 105C 300V VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS OIL RESISTANT (SEQ FOOTAGE) * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>	

## Applicable Specifications

1) UL		
a) Component 1	AWM/STYLE 10002	105°C / 300 V <sub>RMS</sub>
b) Overall	AWM/STYLE 2517	105°C / 300 V <sub>RMS</sub>
	SUN RES	
	AWM/STYLE 2464	80°C / 300 V <sub>RMS</sub>
	CM	105°C
	VW-1	
2) CSA International	CMG	105°C
	FT4	
3) IEC	EN 60332-1 Flame Behavior	
	EN 60332-2 Flame Behavior	
4) Other	Oil Resistant	
5) CE:	EU Low Voltage Directive 2014/35/EU	

## Environmental

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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

Physical & Mechanical Properties	
1) Temperature Range	-35 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	459 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	35 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	63 pF/ft @1 kHz, Nominal
4) Inductance	0.18 μH/ft, Nominal
5) Conductor DCR	16.5 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.16 Ω/1000ft @20°C, Nominal

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	18 x 9 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>
Notes:	
a) Oil Resistant Jacket (7d @ 60C).	

[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/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5110/80C

5110/80C, RoHS-Compliant Commencing With 8/1/2005 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

## Substance

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) , Including Deca-BDE	0.1% by weight (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% by weight (1000 ppm)
Dibutyl phthalate (DBP)	0.1% by weight (1000 ppm)
Diisobutyl phthalate (DIBP)	0.1% by weight (1000 ppm)

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 its release. The information provided is designed only as a general guide 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 not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 7/31/2025

Alpha Wire  
2200 US Highway 27 South  
Richmond, IN 47374  
Tel: 1-908-925-8000