

## Customer Specification

**PART NO. 5110/60C**

## Construction

				Diameters (In)	
1) Component 1		60 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	21	WHITE/BLACK/RED	41	WHITE/ORANGE/YELLOW
2	BROWN	22	WHITE/BLACK/ORANGE	42	WHITE/ORANGE/GREEN
3	RED	23	WHITE/BLACK/YELLOW	43	WHITE/ORANGE/BLUE
4	ORANGE	24	WHITE/BLACK/GREEN	44	WHITE/ORANGE/VIOLET
5	YELLOW	25	WHITE/BLACK/BLUE	45	WHITE/ORANGE/SLATE
6	GREEN	26	WHITE/BLACK/VIOLET	46	WHITE/YELLOW/GREEN
7	BLUE	27	WHITE/BLACK/SLATE	47	WHITE/YELLOW/BLUE
8	VIOLET	28	WHITE/BROWN/RED	48	WHITE/YELLOW/VIOLET
9	SLATE	29	WHITE/BROWN/ORANGE	49	WHITE/YELLOW/SLATE
10	WHITE	30	WHITE/BROWN/YELLOW	50	WHITE/GREEN/BLUE
11	WHITE/BLACK	31	WHITE/BROWN/GREEN	51	WHITE/GREEN/VIOLET
12	WHITE/BROWN	32	WHITE/BROWN/BLUE	52	WHITE/GREEN/SLATE
13	WHITE/RED	33	WHITE/BROWN/VIOLET	53	WHITE/BLUE/VIOLET
14	WHITE/ORANGE	34	WHITE/BROWN/SLATE	54	WHITE/BLUE/SLATE
15	WHITE/YELLOW	35	WHITE/RED/ORANGE	55	WHITE/VIOLET/SLATE
16	WHITE/GREEN	36	WHITE/RED/YELLOW	56	WHITE/BLACK/BROWN/RED
17	WHITE/BLUE	37	WHITE/RED/GREEN	57	WHITE/BLACK/BROWN/ORANGE
18	WHITE/VIOLET	38	WHITE/RED/BLUE	58	WHITE/BLACK/BROWN/YELLOW
19	WHITE/SLATE	39	WHITE/RED/VIOLET	59	WHITE/BLACK/BROWN/GREEN
20	WHITE/BLACK/BROWN	40	WHITE/RED/SLATE	60	WHITE/BLACK/BROWN/BLUE
2) Cable Assembly		60 Components Cabled			
a) Twists:		1.8 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		0.588 (0.618 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 5110/60C 60C 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 [Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]			

**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

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	344 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	1.8 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>
<b>Notes:</b>	
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

Although Alpha Wire ("Alpha") makes every reasonable effort to ensure there accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha had been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

ALPHA WIRE - CONFIDENTIAL AND PROPRIETARY Notice to persons receiving this document and/or technical information. This document is confidential and is the exclusive property of ALPHA WIRE, and is merely on loan and subject to recall by ALPHA WIRE at any time. By taking possession of this document, the recipient acknowledges and agrees that this document cannot be used in any manner adverse to the interests of ALPHA WIRE, and that no portion of this document may be copied or otherwise reproduced without the prior written consent of ALPHA WIRE. In the case of conflicting contractual provisions, this notice shall govern the status of this document. ©2024 ALPHA WIRE - all rights reserved.



# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5110/60C

5110/60C, 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

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)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
0.1% by weight (1000 ppm)  
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 5/4/2024

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