

# Customer Specification

## PART NO. 5279/51C

### Construction

			Diameters (In)		
1) Component 1		51 X 1 PAIR			
a) Conductor		24 (7/32) AWG Tinned Copper		0.024	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.044	
(1) Color Code		Alpha Wire Color Code B			
Pair	Color	Pair	Color	Pair	Color
1	WHITE-BLACK	18	BROWN-RED	35	ORANGE-SLATE
2	WHITE-BROWN	19	BROWN-ORANGE	36	YELLOW-GREEN
3	WHITE-RED	20	BROWN-YELLOW	37	YELLOW-BLUE
4	WHITE-ORANGE	21	BROWN-GREEN	38	YELLOW-VIOLET
5	WHITE-YELLOW	22	BROWN-BLUE	39	YELLOW-SLATE
6	WHITE-GREEN	23	BROWN-VIOLET	40	GREEN-BLUE
7	WHITE-BLUE	24	BROWN-SLATE	41	GREEN-VIOLET
8	WHITE-VIOLET	25	RED-ORANGE	42	GREEN-SLATE
9	WHITE-SLATE	26	RED-YELLOW	43	BLUE-VIOLET
10	BLACK-BROWN	27	RED-GREEN	44	BLUE-SLATE
11	BLACK-RED	28	RED-BLUE	45	VIOLET-SLATE
12	BLACK-ORANGE	29	RED-VIOLET	46	WHITE/BLACK-BLACK
13	BLACK-YELLOW	30	RED-SLATE	47	WHITE/BLACK-BROWN
14	BLACK-GREEN	31	ORANGE-YELLOW	48	WHITE/BLACK-RED
15	BLACK-BLUE	32	ORANGE-GREEN	49	WHITE/BLACK-ORANGE

16	BLACK-VIOLET	33	ORANGE-BLUE	50	WHITE/BLACK-YELLOW
17	BLACK-SLATE	34	ORANGE-VIOLET	51	WHITE/BLACK-GREEN
c) Pair		2/Cond Cabled Together			
(1) Twists:		9.6 Twists/foot (min)			
2) Cable Assembly		51 Components Cabled			
a) Twists:		1.7 Twists/foot (min)			
b) Orientation:		Components to be arranged from INSIDE LAYER to OUTSIDE LAYER			
c) Core Wrap		Nonwoven Polyester Tape, 25% Overlap, Min.			
3) Shield:		A/P/A Tape, 25% Overlap, Min.			
a) Drain Wire		24 (7/32) AWG Tinned Copper			
b) Braid		Tinned Copper, 70% Coverage, Min.			
4) Jacket		0.053" Wall, Nom., PVC		0.739 (0.779 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 5279/51C 51PR 24 AWG XTRAGUARD(R) 1 SHIELDED (UL) TYPE CM 105C OR AWM 2464 80C 300V OR AWM 21894 105C 300V SUN RES 60C OIL VW-1 --- LLXXXXXX CSA 105C TYPE CMG FT4 CE ROHS (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 21894	105°C / 300 V <sub>RMS</sub>
	SUN RES	
	60C OIL	
	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) CE:	EU Low Voltage Directive 2014/35/EC	

## Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	
	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. Consult Alpha Wire's web site for RoHS C of C.
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. For up-to-date information, please see Alpha's REACH SVHC Declaration.
3) California Proposition 65:	Exempt from warning labels based on the Consent Judgment. Please see Alpha's CA Prop 65 Statement for more information.

## Properties

Physical & Mechanical Properties	
1) Temperature Range	-35 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	377 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties (For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Mutual Capacitance	23.1 pF/ft @1 kHz, Nominal
3) Ground Capacitance	42 pF/ft @1 kHz, Nominal
4) Characteristic Impedance	82 Ω
5) Inductance	0.19 μH/ft, Nominal
6) Conductor DCR	26 Ω/1000ft @20°C, Nominal
7) OA Shield DCR	1.35 Ω/1000ft @20°C, Nominal

# Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	36 x 14 x 12 Continuous length
b) 500 FT	30 x 14 x 12 Continuous length
c) 100 FT	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: 5279/51C

5279/51C, RoHS-Compliant Commencing With 8/1/2005 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 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) 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.

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)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering & QA

10/7/2021

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