



DATE: 07-28-10

## PRODUCT SPECIFICATION 13878 L

TYPE: TelcoFlex® III / KS24194™ L3  
 Central Office Power Wire and Cable  
 Limited Smoke, Non-Halogenated Insulated (With Cotton Braid)  
 Lead-Free and Silicone Free, Meets European RoHS Directive  
 UL Listed RHH/ST1 and VW-1  
 90°C Dry, 60°C Wet - 600 Volts  
 UL Listed "For CT Use" (1/0 & Larger)  
 CSA AWM I B 105°C, 600 V. FT4  
 Complies with Telcordia GR-347-CORE

SIZE: 14 AWG thru 750 KCMIL - Single Conductor

I. SCOPE:

This specification covers the construction requirements for limited smoke, non-halogenated central office power wire and cable, insulated with SOUTHWIRE TelcoHyde® 5221. UL listed Type RHH/ST1 with cotton braid for use in accordance with the National Electrical Code.

The construction of the wire and cable is in accordance with Specification KS24194™ (List 3), Underwriters' Laboratories requirements, and the requirements of CSA for the FT4 flame test. Sizes 1/0 AWG and larger are UL "CT Use" (Cable Tray) rated.

II. CONSTRUCTION:

SIZE (AWG or KCMIL)	STRANDING	CONDUCTOR DIAMETER (INCHES)	INSUL. MIN. AVG. WALL (MILS)	NOMINAL INSUL. DIAM. (INCHES)	NOMINAL BRAID DIAM. (INCHES)	MAX D.C. RES. @ 20°C (OHMS/M')	AMPACITY PER NEC TABLE 310.16	
							75°C	90°C
14	7/.0242"	.071	45	.165	.200	2.730	20	25
12	7/.0305"	.090		.185	.220	1.720	25	30
10	7/.0385"	.114		.210	.250	1.080	35	40
8	7/.0486"	.143	60	.270	.320	0.678	50	55
6	7/.0612"	.180		.305	.355	0.427	65	75
4	7/.0772"	.227		.350	.400	0.269	85	95
2	7/.0974"	.286		.410	.460	0.169	115	130
Continued								



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II. CONSTRUCTION (Continued):

SIZE (AWG or KCMIL)	STRANDING	CONDUCTOR DIAMETER (INCHES)	INSUL. MIN. AVG. WALL (MILS)	NOMINAL INSUL. DIAM. (INCHES)	NOMINAL BRAID DIAM. (INCHES)	MAX D.C. RES. @ 20°C (OHMS/M')	AMPACITY PER NEC TABLE 310.16	
							75°C	90°C
1/0	19/.0745"	.365	80	.530	.580	0.106	150	170
2/0	19/.0837"	.411		.575	.630	0.084	175	195
4/0	19/.1055"	.517		.680	.735	0.052	230	260
350	37/.0973"	.667	95	.860	.915	0.032	310	350
500	37/.1162"	.797		.990	1.045	0.022	380	430
750	61/.1109"	.978	110	1.200	1.260	0.0148	475	535

A. CONDUCTORS:

Class B stranded, tin-coated copper conforming to ASTM B-33 and Underwriters' Laboratories requirements. An opaque Mylar tape shall be applied over the conductor to facilitate stripping. Bare copper is available upon request.

B. INSULATION:

90°C / 105°C rated limited smoke, non-halogen TelcoHyde® 5221 conforming to Underwriters' Laboratories Standard 44, Subjects 509 and 758, and CSA C22.2 No. 210.2 M90. In addition, TelcoHyde® 5221 complies with the requirements of Telcordia Specification GR-347-CORE. The insulation has a Limiting Oxygen Index of 35%.

C. SEPARATOR:

On sizes 6 AWG and larger, a 1 mil clear Mylar tape shall be applied over the insulation.

D. COVERING:

On all sizes, a natural cotton braid conforming to UL Standard 44 requirements is applied overall. A section of completed cable has a Limiting Oxygen Index of 35%.

E. FINISH:

A moisture resistant, fire retardant saturant and a colored finisher are applied to the braid.



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F. SURFACE MARKING:

Two sides of the cable shall be printed using an ink of a contrasting color and with the following information:

"TelcoFlex® III / KS24194™ L3 NON-HAL (SIZE) AWG (or KCMIL) 600 V. RHH/ST1 FT4 (UL) or AWM 3578 60°C WET VW-1 E18321 --- A.I.W. CORP. --- LL 8825 CSA AWM I B 105° 600V. FT4 (YEAR) M\_\_\_\_\_\*"

Add "FOR CT USE" before "(UL)" on Sizes 1/0 AWG and larger.

Sequential footage markings shall be applied at 2 foot intervals on one side of the cable.

\*SOUTHWIRE manufacturing order number

G. TESTING:

Physical and electrical tests in accordance with the requirements of UL Standard 44, Subject 509 and 758, and CSA Standard C22.2 No. 210.2 M90 as AWM.

H. LABELS:

UL and CSA tags and labels shall be applied to all packages.

I. LENGTHS:

All put-ups one length only unless agreed to otherwise. Maximum lengths per size will be advised.

J. PACKAGING:

The ends of the cable shall be capped or taped to prevent the entrance of moisture during shipment or storage.



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K. PART NUMBERS for TelcoFlex® III / KS24194™ L3:

SIZE ALL ITEMS ARE BRAIDED	COLOR							
	GRAY	GREEN	BLUE	RED	BLACK	RED --	BLUE --	GRAY
						BLACK TRACER	BLACK TRACER	BLACK TRACER
750	56961301	56961501	56961101	56961701	W39859	57126201	56961201	56961401
500	56963301	56963501	56963001	57155501	56962901	56963601	56963101	56963401
350	56980801	57156901	57149201	56981001	57138201	56981101	56980701	56980901
4/0	56984501	56984701	56984301	56984901	56984201	56985001	56984401	56984601
2/0	56977701	56977901	56977501	56978101	57138301	56978201	56977601	56977801
1/0	56966701	56966901	56966401	56967001	57138401	56967101	56966601	56966801
2	56975701	56976001	56976101	56975801	56975901	56976201	56976301	56976501
4	56982601	56982801	56982401	56982901	57128701	56983101	56982501	56982701
6	56986401	56986501	56986201	56986601	56986101	56986701	57149101	57141001
8	57126701	56988001	57149001	56988101	56987901	W39811	W39812	W40771
10	57051101	56968201	56968001	56968301	56967901	56968401	W39806	
12	56969501	56969601	56969401	56969701	56969301	W39799	W39800	
14	57133601	57145701	57155601	57133701	57133501	W39793	W39794	
COLOR	GRAY	GREEN	RED	BLUE	BLACK	RED/BLACK	BLUE/BLACK	GRAY/BLACK