

SiliFlex Wire & Cable

SiliFlex Hookup and Multiconductor Cables

FEATURES:

- Resistant to temperature extremes
- Excellent electrical characteristics
- Easily stripped
- Lightweight
- Corona resistant
- High radiation resistance

GENERAL DESCRIPTION

SiliFlex is distinguished by its extreme limpness and flexibility. It is the most limber of all the High Flex Products offered by Calmont. Silicone rubber insulation compounds are inherently soft and pliable and resists the plastic flow that characterizes many insulation systems. Silicone compounds can be tailored to meet a variety of demands such as extreme high and low temperature requirements, flame resistance, flexibility, radiation resistance, strength and purity.

APPLICATIONS

SiliFlex is used extensively for robotic, aerospace and medical applications.

MULTICONDUCTOR JACKET OPTIONS

- Silicone
- FEP
- TPE

General Specifications

ELECTRICAL PROPERTIES

D.C. Volume Resistivity (ohm - CM)	1×10^{15}
Dielectric Strength (VPM on .075 slab)	550 - 700
Dielectric Constant	1000
at 60 Hz	2.9 - 3.5
Power Factor at 60 Hz	.002 - .004
Radiation Resistant (Roentgens)	1×10^8

PHYSICAL PROPERTIES

Specific Gravity	1.20 - 1.45
Elongation (%)	125 (min.)
Shore Hardness (A Scale)	65 (avg.)
Tensile Strength (PSI)	800 - 1100

THERMAL PROPERTIES

Temperature Rating	-100°F to 400° F
Estimated Useful Life - at -80°F	Indefinite
- at 250°F	10 years
- at 300°F	5 years
- at 400°F	2 years
- at 500°F	3 months

FLAME RESISTANCE

SiliFlex is available with a self-extinguishing silicone rubber insulation that will pass the Underwriters' Laboratories® VW-1 flame test and the 45° angle flame test of MIL-W-16878.

MEDICAL USAGE

SiliFlex can be manufactured with medical grade silicone compounded under clean room conditions. This can be used for medical implantation. To maintain the highest level of purity, the insulation is available nonpigmented (translucent).

Calmont SiliFlex Hookup Wire

Part Number	Bare Copper Conductor ¹						Finished Wire			
	AWG SIZE	(No. of Strands/ Strand Size)	Strand Diameter (inches)	Conductor Diameter (Nominal)	Conductor Area (CM) (Nominal)	Conductor Resistance (OHMS/1000' NOM)	Current Carrying Capacity @80°C (approximate)	Outside Diameter (± .003)	Weight (lbs./1000') approximate	Stiffness Comparison (pounds)
3006-028-20-1-C-CCC-S	20	105/40	.0031	.039	1038.00	10.00	4.00	.064	4.94	.1400
3006-028-22-1-C-CCC-S	22	65/40	.0031	.031	642.00	16.10	2.50	.056	3.34	.0500
3006-028-24-1-C-CCC-S	24	41/40	.0031	.023	405.00	25.60	1.60	.047	2.25	.0200
3006-028-26-1-C-CCC-S	26	66/44	.0020	.019	258.00	40.20	1.00	.042	1.61	.0090
3006-028-28-1-C-CCC-S	28	41/44	.0020	.015	160.00	64.70	.60	.038	1.17	.0056
3006-028-29-1-C-CCC-S	29	51/46	.0016	.014	125.00	82.70	.50	.030	.79	.0040
3006-028-30-1-C-CCC-S	30	41/46	.0016	.012	100.00	102.80	.40	.028	.67	.0020
3006-028-32-1-C-CCC-S	32	27/46	.0010	.008	38.00	266.50	.16	.022	.35	.0015
3006-028-34-1-C-CCC-S	34	40/50	.0010	.006	24.00	426.40	.10	.020	.27	.0012
3006-028-36-1-C-CCC-S	36	25/50	.0010	.005	16.00	666.20	.60	.019	.22	.0009
3006-028-38-1-C-CCC-S	38	16/50	.0010	.005	15.57	666.20	.06	.019	.22	.0039
3006-028-40-1-C-CCC-S	40	12/50	.0010	.003	12.00	888.30	.04	.018	.19	.0008

¹Contact Calmont for additional conductor options



SiliFlex Wire & Cable

SILICONE/SILICONE

SILICONE INSULATED, SHIELDED AND SILICONE JACKETED CABLES

PART NUMBER See How to Order Page for Information	AWG Size	Strands No./Size	Uninsulated Conductor Diameter	Insulated Conductor Diameter	Diameter Over Shield (Nominal)	Overall Diameter (Nominal)	Weight (lbs./M Ft.)
ONE CONDUCTOR							
3006-028-20-1-C-CCC-S	20	105/40	.039	.064	.078	.102	9.6
3006-028-22-1-C-CCC-S	22	65/40	.031	.056	.070	.094	7.5
3006-028-24-1-C-CCC-S	24	41/40	.023	.047	.061	.085	5.9
3006-028-26-1-C-CCC-S	26	66/44	.019	.042	.056	.076	4.6
3006-028-28-1-C-CCC-S	28	41/44	.015	.038	.052	.072	4.0
3006-028-29-1-C-CCC-S	29	51/46	.014	.030	.044	.064	3.2
3006-028-30-1-C-CCC-S	30	41/46	.012	.028	.042	.062	3.0
TWO CONDUCTOR							
3006-028-20-2-C-CCC-S	20	105/40	.039	.064	.135	.165	19.4
3006-028-22-2-C-CCC-S	22	65/40	.031	.056	.120	.150	15.0
3006-028-24-2-C-CCC-S	24	41/40	.023	.047	.103	.133	11.6
3006-028-26-2-C-CCC-S	26	66/44	.019	.042	.093	.123	9.5
3006-028-28-2-C-CCC-S	28	41/44	.015	.038	.086	.116	8.2
3006-028-29-2-C-CCC-S	29	51/46	.014	.030	.071	.099	6.2
3006-028-30-2-C-CCC-S	30	41/46	.012	.028	.067	.095	5.7
THREE CONDUCTOR							
3006-028-20-3-C-CCC-S	20	105/40	.039	.064	.152	.192	26.7
3006-028-22-3-C-CCC-S	22	65/40	.031	.056	.135	.165	19.0
3006-028-24-3-C-CCC-S	24	41/40	.023	.047	.115	.145	14.4
3006-028-26-3-C-CCC-S	26	66/44	.019	.042	.104	.134	11.9
3006-028-28-3-C-CCC-S	28	41/44	.015	.038	.096	.126	9.9
3006-028-29-3-C-CCC-S	29	51/46	.014	.030	.078	.108	7.6
3006-028-30-3-C-CCC-S	30	41/46	.012	.028	.074	.104	7.0
FOUR CONDUCTOR							
3006-028-20-4-C-CCC-S	20	105/40	.039	.064	.168	.212	33.9
3006-028-22-4-C-CCC-S	22	65/40	.031	.056	.149	.189	25.3
3006-028-24-4-C-CCC-S	24	41/40	.023	.047	.127	.157	17.8
3006-028-26-4-C-CCC-S	26	66/44	.019	.042	.115	.145	14.4
3006-028-28-4-C-CCC-S	28	41/44	.015	.038	.105	.135	12.0
3006-028-29-4-C-CCC-S	29	51/46	.014	.030	.086	.116	9.1
3006-028-30-4-C-CCC-S	30	41/46	.012	.028	.081	.111	8.4
FIVE CONDUCTOR							
3006-028-20-5-C-CCC-S	20	105/40	.039	.064	.186	.230	40.4
3006-028-22-5-C-CCC-S	22	65/40	.031	.056	.165	.209	30.6
3006-028-24-5-C-CCC-S	24	41/40	.023	.047	.141	.181	22.5
3006-028-26-5-C-CCC-S	26	66/44	.019	.042	.127	.157	16.8
3006-028-28-5-C-CCC-S	28	41/44	.015	.038	.116	.146	13.9
3006-028-29-5-C-CCC-S	29	51/46	.014	.030	.095	.125	10.5
3006-028-30-5-C-CCC-S	30	41/46	.012	.028	.089	.119	9.6
SIX CONDUCTOR							
3006-028-20-6-C-CCC-S	20	105/40	.039	.064	.206	.256	48.2
3006-028-22-6-C-CCC-S	22	65/40	.031	.056	.182	.226	35.3
3006-028-24-6-C-CCC-S	24	41/40	.023	.047	.155	.199	26.6
3006-028-26-6-C-CCC-S	26	66/44	.019	.042	.140	.180	20.9
3006-028-28-6-C-CCC-S	28	41/44	.015	.038	.128	.158	15.9
3006-028-29-6-C-CCC-S	29	51/46	.014	.030	.104	.134	11.9
3006-028-30-6-C-CCC-S	30	41/46	.012	.028	.098	.128	10.8

NOTE 1:

Data based on 85% braid shield coverage. Other shield coverages and types are available.

NOTE 2:

Additional AWG sizes and conductor counts available.

NOTE 3:

See How to Order on the inside of the section tab for further information.

APPLICATION		REVISIONS			
NEXT ASSY	USED ON	REV -	DESCRIPTION	DATE	APPROVED

SOURCE CONTROL DRAWING

1.0 SCOPE

THIS SPECIFICATION DETAILS THE REQUIREMENTS FOR A 1-CONDUCTOR, 26AWG, SILICONE INSULATED WIRE.

2.0 APPLICABLE DOCUMENTS

ASTM D 3951 STANDARD PRACTICE FOR COMMERCIAL PACKAGING

3.0 ELEMENT

PRIMARY

CONDUCTOR: 26 (66/44) TIN PLATED COPPER
 INSULATION: SILICONE
 WALL: 0.012" NOMINAL, CONCENTRICITY 70%
 DIAMETER: 0.042" NOMINAL
 COLOR: GREEN

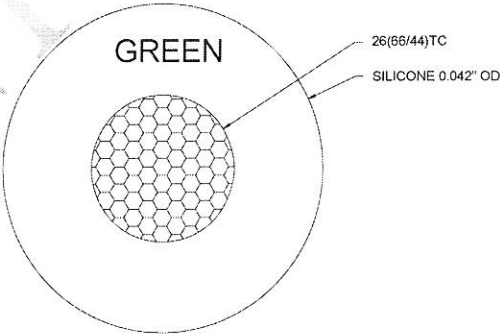
4.0 TESTING

VISUAL: 100%
 CONTINUITY: 100%

5.0 PACKAGING

CABLE TO BE PACKAGED IN SUCH A MANNER AS TO ASSURE PROTECTION FROM DAMAGE DURING NORMAL HANDLING AND STORAGE, IN ACCORDANCE WITH ASTM-D-3951.

6.0 CROSS-SECTIONAL DRAWING



		CONTRACT NO.		CALMONT WIRE AND CABLE INC. 420 EAST ALTON AVENUE, SANTA ANA, CALIFORNIA, 92707. USA TEL 714-549-0336 FAX 714-549-4028 www.calmont.com					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES	APPROVALS	DATE	CABLE, SPECIAL PURPOSE 1-CONDUCTOR, 26AWG, SILICONE INSULATED WIRE						
	DRAWN: H. TRAN	6/14/2017							
MATERIAL	CHECKED: S. OVERSTREET	6/14/2017							
FINISH	ISSUED: H. TRAN	6/14/2017	SIZE	A	CAGE	24027	DWG NO.	3006-028-26-1-5-TC-U-NO JKT	REV. -
DO NOT SCALE DRAWING			SCALE					SHEET 1/1	