

SuperFlex Wire & Cable

SuperFlex Hookup and Multiconductor Cables

FEATURES:

- High dielectric strength
- High flexural fatigue life
- Low cost
- Bondable
- Resists deformation
- Resists abrasion
- Resists moisture

GENERAL DESCRIPTION

SuperFlex was pioneered and developed by Calmont for the exacting commercial and military markets. Specially compounded and plasticized polyvinyl chloride insulation applied over ultra fine stranded wire yields a finished wire with a longer flex life and a higher flexure index level than that attainable with ordinary PVC insulated wire.

APPLICATIONS

SuperFlex is an ideal choice for a variety of low temperature, high flex applications. SuperFlex is commonly used for disposable medical devices, robotics, sensors and assorted cost sensitive commercial applications.

MULTICONDUCTOR JACKET OPTIONS

- PVC • TPE • PU

General Specifications

ELECTRICAL PROPERTIES		D.C. Volume Resistivity (ohm – CM)	1 x 10 ¹²
		Dielectric Strength (VPM on .075 slab)	400
		Insulation Resistance at 15.6° C (MΩ 1000 FT)	1000
		Dielectric Constant:	
		at 60 Hz	5.0 - 6.0
		at 10 ³ Hz	4.5 - 5.8
		at 10 ⁶ Hz	3.5 - 4.5
		Dissipation Factor:	
		at 60 Hz	.05 - .15
		at 10 ³ Hz	.06 - .16
		at 10 ⁶ Hz	.07 - .17
PHYSICAL PROPERTIES		Tensile Strength (PSI)	1500 - 2500
		Elongation (%)	150 - 375
		Specific Gravity	1.2 - 1.5
		Shore Hardness (A Scale)	55 - 95
THERMAL PROPERTIES		Flammability	Self Extinguishing
		Operating Temperature (Useful life estimate: 20 yrs at 80° C).	-20 ° to 105 ° C
		(Optional Insulation available with operating temperature -40 to 105 ° C).	

Calmont SuperFlex Hookup Wire

Part Number	Bare Copper Conductor						Finished Wire			
	AWG SIZE	STRANDS ¹ (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)
3006-023-20-1-C-CCC-S	20	105/40	.0031	.039	1038.30	10.00	4.00	.065	5.00	.2580
3006-023-22-1-C-CCC-S	22	65/40	.0031	.031	642.70	16.10	2.50	.054	3.30	.1900
3006-023-24-1-C-CCC-S	24	41/40	.0031	.023	405.40	25.60	1.60	.047	2.30	.0780
3006-023-26-1-C-CCC-S	26	66/44	.0020	.019	258.10	40.20	1.00	.042	1.60	.1360
3006-023-28-1-C-CCC-S	28	41/44	.0020	.015	160.30	64.70	.60	.038	1.20	.0224
3006-023-29-1-C-CCC-S	29	51/46	.0016	.014	125.50	82.70	.50	.030	.80	.0120
3006-023-30-1-C-CCC-S	30	41/46	.0016	.012	100.90	102.80	.40	.028	.67	.0084
3006-023-32-1-C-CCC-S	32	27/46	.0016	.009	66.41	156.20	.25	.026	.52	.0063
3006-023-34-1-C-CCC-S	34	40/50	.0010	.008	38.92	266.50	.16	.022	.35	.0051
3006-023-36-1-C-CCC-S	36	25/50	.0010	.006	24.32	426.40	.10	.020	.27	.0044
3006-023-38-1-C-CCC-S	38	16/50	.0010	.005	15.57	666.20	.06	.019	.22	.0039
3006-023-40-1-C-CCC-S	40	12/50	.0010	.003	11.67	888.30	.04	.018	.19	.0035

¹Contact Calmont for additional conductor options