

# FlexLine®

Super flexible cables 1/2" S (FRNC) UL listed



### Design

Inner conductor: copper-clad aluminium wire ø 3.6 mm (0.142 in)  
 Insulation of foamed Polyethylene (PE) with skin ø 9.1 mm (0.358 in)  
 Outer conductor: copper-tape (thickness 0.20 mm) longitudinal welded.  
 Spiral corrugated ø (12.3 ±0.15) mm (0.484 ±0.006 in)

### Jacket:

Thermoplastic copolymer (FRNC) BK  
 Wall Thickness about 0.6 mm (0.024 in) ø (13.5 ±0.2) mm (0,531 ±0,008 in)

Printing: "sequential length in metres" LEONI L \* FlexLine® 1/2" S FRNC 50Ω >FRNC.PE<  
 (UL)Listed 30E3 "internal order number" "month/year"

### Electrical data at 20°C

Inner conductor resistance	≤	3.0	Ohm/km	(0.92 Ohm/1000ft)
Outer conductor resistance	≤	4.3	Ohm/km	(1.3 Ohm/1000ft)
Insulation resistance	≥	10	GOhm*km	(32.8 GOhm*1000ft)
Capacitance (1 kHz)		80	nF/km	(24.4 nF/1000ft)
Characteristic Impedance		(50 ± 1)	Ohm	
Relative velocity of propagation		82	%	
Test voltage (wire/screen rms 50Hz 1 min)		2000	V	
HF-operating voltage (peak)	≤	1000	V	
Return loss 400 - 500 MHz	≥	26	dB	(VSWR 1.1)
800 - 1000 MHz	≥	26	dB	(VSWR 1.1)
1700 - 2700 MHz	≥	26	dB	(VSWR 1.1)

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Screening attenuation	≥ 120	dB
Passive intermodulation	≥ 160	dBc
Inductance	0.195	μH/m (0.059 μH/ft)
Max. operating frequency	10.2	GHz
Cut-off frequency	13	GHz
Max. peak power	19	kW
Attenuation	s. table	

Frequency (MHz)	100	450	800	900	1000	1800	1900	2200	2500	2700	3000
Attenuation typ. (dB/100m) (dB/100ft)	3 (0,9)	6,8 (2,1)	9,3 (2,8)	9,9 (3,0)	10,5 (3,2)	14,6 (4,4)	15 (4,6)	16,3 (5,0)	17,6 (5,4)	18,4 (5,6)	19,5 (5,9)
Mean. Power (kW) at 40°C (104°F)	2.6	1.2	0.87	0.81	0.77	0.55	0.54	0.49	0.46	0.44	0.41

### Mechanical and thermal characteristics

Screen material acc. to DIN EN 13602 Cu-ETP-R  
 Jacket material acc. to DIN EN 50290-2-27 (HD 624.7)  
 Flame retardant acc. to IEC 60332-3-24 (Cat. C)  
 Flame retardant acc. to UL 1581, Sec. 1080 (VW-1)

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### Other characteristics:

RoHS compliant (Directive 2011/65/EC)  
 Sunlight resistant acc. to UL 1581 Sec.1200  
 Halogen free acc. IEC 60754-2  
 Smoke-density acc. to IEC 61034-1/2  
 Fire performance acc. to EN 50305 9.1.1  
 Toxicity EN 50305  
 TS 45545-2 table 5 R15/HL2, DIN EN 45545-2 R15/HL2

Permissible temperature range, installation : -25°C (-13°F) up to +60°C (+140°F)  
 Permissible temperature range, operation : -55°C (-67°F) up to +85°C (+185°F)  
 Min. bending radius allowed : repeated 2,15X ø, single 1,1X ø  
 Number of bends. minimum (typical) : 20 (50)  
 Tensile strength : ≤ 700 N  
 Weight about : 185 Kg/km (124,0 lb/1000ft)

### Application/Special feature:

Coaxial cabling for application cellular phone

### Designation of order:

L45466-B19-C166  
 213196  
 02YSWKH 3.6/9.1-50 ALCU FRNC  
 1000 m (3281 ft) on non-returnable reel

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Technical modification reserved

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