

## Flexible RF cable SPUMA\_195-FR-01

### Description

Spuma: Flexible, low-loss RF cables (LMR\* alternatives)  
50 Ohm, 6 GHz, 85°C, ø4.98 mm, LSFH jacket, Flame retardant,  
Railway and CPR qualified



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Copper	Wire	0.94 mm
Dielectric	SPE (Foamed Polyethylene)		2.83 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	2.95 mm
Outer conductor	Copper, Tin plated	Braid, 92 %	3.52 mm
Jacket	LSFH (modified polyethylene)	RAL 9005 - bk	4.98 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 195-FR-01 50 Ohm Eca (production order number)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	90.8 pF/m
Velocity of signal propagation	76.1 %
Signal delay	4.54 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 0.5 kV <sub>rms</sub> (at sea level)
Test voltage	1 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight		3.97 kg/100 m
Min. bending radius	static	10 mm 40 mm

#### Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, EN 50305, 9.1.2
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed
2011/305/EU (CPR)	compliant, Eca

### Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL3 NFPA-130 compliant An operating temperature of -55°C is feasible for static applications. \*) LMR is a registered trademark of Times Microwave Inc.

#### Ordering Information

Order as SPUMA\_195-FR-01

#### Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

#### Suitable Connectors

Cable group X27 3 mm / 50 Ohm

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**Matrix** typical Attenuation [ formula:  $(a \cdot f^{0.5} + b \cdot f)$  ] and maximum Power CW [ formula:  $(p/f^{0.5})$  ]

Coefficients:

a = 0.3754

b = 0.0169

$f_{max} = 6$

P at 1GHz = 160

Frequency (GHz)	Nom. attenuation (dB / m) sea level 25° C ambient temperature	Nom. attenuation (dB / ft) sea level 25° C ambient temperature	Max. CW power (W) sea level 40° C ambient temperature
0,3	0,21	0,064	292
0,6	0,3	0,092	207
0,9	0,37	0,113	169
1,2	0,43	0,132	146
1,5	0,49	0,148	131
1,8	0,53	0,163	119
2,1	0,58	0,177	110
2,4	0,62	0,190	103
2,7	0,66	0,202	97
3,0	0,7	0,214	92
3,3	0,74	0,225	88
3,6	0,77	0,236	84
3,9	0,81	0,246	81
4,2	0,84	0,256	78
4,5	0,87	0,266	75
4,8	0,9	0,275	73
5,1	0,93	0,285	71
5,4	0,96	0,294	69
5,7	0,99	0,303	67
6,0	1,02	0,311	65