

## Flexible RF cable Spuma\_400-RS-FR

### Description

Spuma: Flexible, low-loss RF cables (LMR\* alternatives)

High-flexible, 50 Ohm, 6 GHz, 85°C, ø10.25 mm, TPU jacket, flame retardant, railway qualified



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Copper	Strand, Low-loss	2.74 mm
Dielectric	SPE (Foamed Polyethylene)		7.24 mm
Outer conductor	Aluminum / PES	longitudinal Foil, 100%	7.4 mm
Outer conductor	Copper, Tin plated	Braid, 91 %	8.15 mm
Jacket	TPU (Urethane TPE)	RAL 9005 - bk	10.25 mm +/- 0.1

Print: HUBER+SUHNER SPUMA 400-RS-FR 50 Ohm (production order number)

#### Electrical Data

Impedance	50 Ω +/- 2
Operating Frequency	6 GHz
Capacitance	78 pF/m
Velocity of signal propagation	85 %
Signal delay	3.9 ns/m
Screening effectiveness	≥ 90 dB (up to 6 GHz)
Operating voltage	≤ 1.6 kV <sub>rms</sub> (at sea level)
Test voltage	3 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight		14.2 kg/100 m
Min. bending radius	static	25 mm
		100 mm
Abrasion test	EN 50305, 5.2	

#### Environmental Data

Temperature range	-40 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	EN 60332-1-2, IEC 60332-3-25
Smoke density test	EN 61034-2
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2012/19/EU (WEEE)	no special marking needed

### Additional Information

EN 45545-2 compliant hazard level for indoor cables: HL2 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\_400-RS-FR

#### Remarks

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

#### Suitable Connectors

Cable group X32 7 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 = 0.1439

b = 0.0061

$f_{\max} = 6$

P at 1GHz = 560

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	0,08	0,025	1022
0,6	0,12	0,035	723
0,9	0,14	0,043	590
1,2	0,16	0,050	511
1,5	0,19	0,057	457
1,8	0,2	0,062	417
2,1	0,22	0,067	386
2,4	0,24	0,072	361
2,7	0,25	0,077	341
3,0	0,27	0,082	323
3,3	0,28	0,086	308
3,6	0,29	0,090	295
3,9	0,31	0,094	284
4,2	0,32	0,098	273
4,5	0,33	0,101	264
4,8	0,34	0,105	256
5,1	0,36	0,109	248
5,4	0,37	0,112	241
5,7	0,38	0,115	235
6,0	0,39	0,119	229