

## Formable microwave cable

SUCOFORM\_141\_LA\_CU\_CMP Item: 85031887

### Description

Sucoform: Formstable, hand-formable alternatives to semi-rigid microwave cables

RG402 dimension, non-magnetic, 50 Ohm, 6 GHz, 165°C,  $\varnothing$ 4.1 mm, FEP jacket, Plenum rated



### Technical Data

#### Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Wire	1.04 mm
Dielectric	PTFE (Polytetrafluoroethylene)		2.95 mm
Outer conductor	Copper, Tin plated	Tin soaked braid, 100%	3.58 mm
Jacket	FEP (Fluorinated ethylene propylene)	RAL 9010 - wh	4.1 mm +/- 0.1

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#### Electrical Data

Impedance	50 $\Omega$ +/- 2
Operating Frequency	6 GHz
Capacitance	85 pF/m
Velocity of signal propagation	78.2 %
Signal delay	4.3 ns/m
Screening effectiveness	$\geq$ 100 dB (up to 18 GHz)
Operating voltage	$\leq$ 1.9 kV <sub>rms</sub> (at sea level)
Test voltage	5 kV <sub>rms</sub> (50 Hz/1 min)

#### Mechanical Data

Weight		4.6 kg/100 m
Min. bending radius	static	8 mm
	repeated (for $\leq$ 50 bendings)	40 mm

#### Environmental Data

Temperature range	-65 °C ... +165 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-1, UL 1581 § 1080 (VW-1), ETL Listed UL444/CMP/FT6
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

### Additional Information

#### Remarks

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

#### Suitable Connectors

Cable group	Y30 - 141 3mm / 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 = 0.3381

b = 0.0186

f<sub>max</sub> = 6

P at 1GHz = 620

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	0,19	0,058	1132
0,6	0,27	0,083	800
0,9	0,34	0,103	654
1,2	0,39	0,120	566
1,5	0,44	0,135	506
1,8	0,49	0,148	462
2,1	0,53	0,161	428
2,4	0,57	0,173	400
2,7	0,61	0,185	377
3,0	0,64	0,195	358
3,3	0,68	0,206	341
3,6	0,71	0,216	327
3,9	0,74	0,226	314
4,2	0,77	0,235	303
4,5	0,8	0,244	292
4,8	0,83	0,253	283
5,1	0,86	0,262	275
5,4	0,89	0,270	267
5,7	0,91	0,278	260
6,0	0,94	0,286	253