

# Low loss coaxial cable for radio communications

## Characteristics

Diameter	10,2 mm
Impedance	50 Ohm
Attenuation @ 1 GHz/100m	14,2 dB
Attenuation @ 1 GHz/100ft	4,33 dB
f <sub>max</sub>	6 GHz

**ECOFLEX 10** is a flexible, low-loss coaxial cable specifically designed for use up to 6 GHz.

Advanced manufacturing techniques combined with the use of a low-loss PE-LLC Dielectric yields a foaming rate of more than 70%. This results in very low attenuation. **ECOFLEX 10** sets a new standard among flexible coaxial cables.

The flexibility of **ECOFLEX 10** is further enhanced through the use of a stranded, oxygen-free copper center conductor.

Use of proprietary techniques, continuous center conductor calibration and compression as well as the application of a precoating results in low losses and good impedance matching.

Further advantages of the cable include the use of double shielding which is constructed of overlapping copperfoil plus an additional tight woven copper braid. A screening efficiency of > 90 dB@ 1 GHz is realized.

The copperfoil has an applied PE-coating which prevents foil cracking due to short radius bends.

The black PVC sheath of **ECOFLEX 10** is uv-stabilized.

In addition to a full compliment of standard connectors, an easy to use solder free N-connector has been specially developed for **ECOFLEX 10**. Connector installation only takes a few minutes and requires no special tools.

**ECOFLEX 10** is the right choice when a low loss, highly flexible microwave rated cable is required. It's economical price makes it the clear leader for today's demanding applications.

**ECOFLEX 10** is available from stock in the following standard drum sizes:  
25m, 50m, 100m, 200m and 500m.

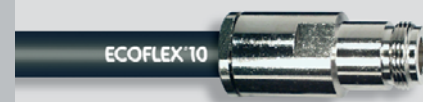
## ECOFLEX® 10 Connectors



Art.-Nr. 7367 N-plug, male



Art.-Nr. 7383 N-plug, male, solderless



Art.-Nr. 7364 N-plug, female



Art.-Nr. 7379 BNC-plug, male



Art.-Nr. 7382 TNC-plug, male



Art.-Nr. 7384 TNC-RP-plug, male (reverse polarity)



Art.-Nr. 7378 UHF-plug, male

# Technical data



ECOFLEX is a registered trademark of SSB-Electronic GmbH.

## Construction

Centre conductor	stranded copper, oxygen free 7 x 1,0 mm
Centre conductor Ø	2,85 mm
Dielectric	low loss compound PE
Dielectric Ø	7,25 mm
Outer conductor 1	copperfoil, PE coated
Shielding factor	100%
Outer conductor 2	copper braid, 72%
Sheath	black PVC, uv-resistant
Outer diameter Ø	10,2 mm

## Mechanical specifications

Weight (100 m)	13,1 kg
Min. bending radius	40 mm
Temperature range	- 40 .... + 85 °C
Pulling strength	5 daN

## Electrical specifications

Impedance	50 Ohm
Capacity	78 pF/m
Velocity factor	0,85
f <sub>max</sub>	6 GHz
Screening efficiency @ 1 GHz	> 90 dB
DC-resistance	
Centre conductor	3,3 Ohm/km
Outer conductor	8,4 Ohm/km
RF peak voltage	1 kV

## Max. power handling (W @40°C)

10 MHz	3960
100 MHz	1210
500 MHz	510
1000 MHz	350
2000 MHz	230
3000 MHz	180
4000 MHz	150
5000 MHz	130
6000 MHz	120

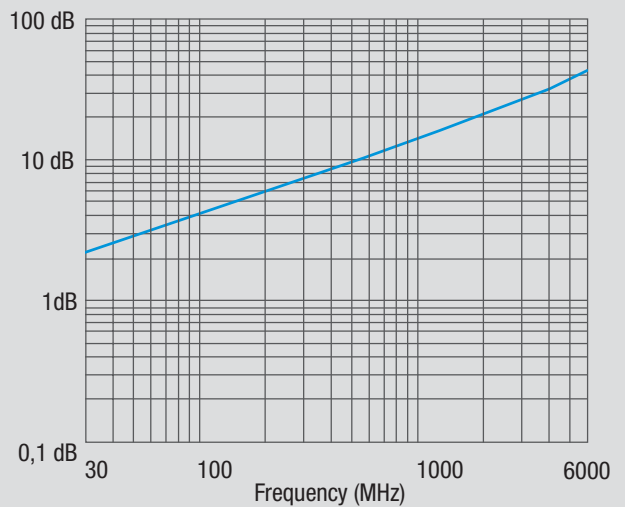
## Typ. attenuation (dB/100m@20°C)    dB/100ft @20°C

5 MHz	0,8	0,24
10 MHz	1,2	0,37
50 MHz	2,8	0,85
100 MHz	4,0	1,22
144 MHz	4,9	1,49
200 MHz	5,8	1,77
300 MHz	7,3	2,23
432 MHz	8,9	2,71
500 MHz	9,6	2,93
800 MHz	12,5	3,81
1000 MHz	14,2	4,33
1296 MHz	16,5	5,03
1500 MHz	17,9	5,46
1800 MHz	19,9	6,07
2000 MHz	21,2	6,46
2400 MHz	23,6	7,20
3000 MHz	27,0	8,23
4000 MHz	32,2	9,82
5000 MHz	37,0	11,28
6000 MHz	41,5	12,65

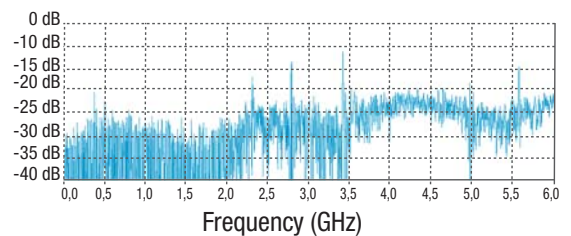
## For your information

	ECOFLEX 10	RG 213/U	RG 58/U
Capacity pF/m	78	101	102
Velocity factor	0,85	0,66	0,66
attenuation dB/100 m			
10 MHz	1,2	2,0	5,0
100 MHz	4,0	7,0	17,0
500 MHz	9,6	17,0	39,0
1000 MHz	14,2	22,5	54,6
3000 MHz	27,0	58,5	118

## Attenuation (dB/100 m) @ 20°C



## Return loss



Due to production tolerances the RTL may have different characteristics

## Accessories

Grounding clamp Art.-Nr. 6085

