

# Low loss coaxial cable for radio communications

## Characteristics

Diameter	14,6 mm
Impedance	50 Ohm
Attenuation @ 1 GHz/100m	9,8 dB
Attenuation @ 1 GHz/100ft	2,99 dB
f <sub>max</sub>	6 GHz

**ECOFLEX 15** is a flexible low-loss coaxial cable for use in the frequency range of DC - 6 GHz.

Its unique construction combines the low loss properties found in non-flexible solid center conductor hardline cables with the high flexibility of cables manufactured with stranded center conductors.

Advanced manufacturing techniques combined with the use of a PE-LLC Dielectric yields a foaming rate of more than 70%, resulting in very low attenuation.

The use of continuous center conductor calibration and compression as well as the application of a precoating guarantees low losses and stable impedance matching.

An EMI screening immunity of > 90 dB at 1.0 GHz is achieved through the use of double shielding which consists of overlapping copper foil and an additional tight woven copper braid. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC sheath of **ECOFLEX 15** is uv-stabilized.

**ECOFLEX 15** is the 1st choice when a low loss, highly flexible microwave rated cable is required. Its economical price makes **ECOFLEX 15** the clear leader for today's demanding applications.

Solder-free, high quality connectors in "N" and "7-16" have been specially developed for **ECOFLEX 15**. Connector installation only takes a few minutes and requires no special tools.

**ECOFLEX 15** is available from stock in the following standard drum sizes:  
25m, 50m, 100m, 200m and 500m.

## ECOFLEX® 15 Connectors



Art.-Nr. 7395 N-plug, male, solderless



Art.-Nr. 7397 N-plug, female, solderless



Art.-Nr. 7398 7/16 DIN-plug, male, solderless

# Technical data



ECOFLEX is a registered trademark of SSB-Electronic GmbH.

## Construction

Centre conductor	stranded copper, oxygen free 7 x 1,55 mm
Centre conductor Ø	4,5 mm
Dielectric	low loss compound PE
Dielectric Ø	11,3 mm
Outer conductor 1	copperfoil, PE coated
Shielding factor	100%
Outer conductor 2	copper braid, 72%
Sheath	black PVC, uv-resistant
Outer diameter Ø	14,6 mm

## Mechanical specifications

Weight (100 m)	25,8 kg
Min. bending radius	70 mm
Temperature range	- 40 .... + 85 °C
Pulling strength	12 daN

## Electrical specifications

Impedance	50 Ohm
Capacity	77 pF/m
Velocity factor	0,86
fmax	6 GHz
Screening efficiency @ 1 GHz	> 90 dB
DC-resistance	
Centre conductor	1,56 Ohm/km
Outer conductor	5,15 Ohm/km
RF peak voltage	1,55 kV

## Max. power handling (W @40°C)

10 MHz	6450
100 MHz	1970
500 MHz	830
1000 MHz	560
2000 MHz	380
3000 MHz	300
4000 MHz	250
6000 MHz	190

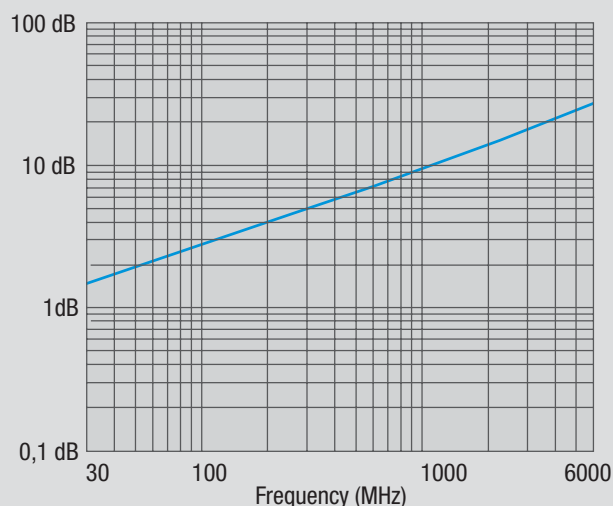
## Typ. attenuation (dB/100m@20°C)    dB/100ft @20°C

5 MHz	0,6	0,18
10 MHz	0,86	0,26
50 MHz	1,96	0,60
100 MHz	2,81	0,86
144 MHz	3,4	1,04
200 MHz	4,05	1,23
300 MHz	5,0	1,52
432 MHz	6,1	1,86
500 MHz	6,7	2,04
800 MHz	8,6	2,62
1000 MHz	9,8	2,99
1296 MHz	11,4	3,48
1500 MHz	12,4	3,78
1800 MHz	13,8	4,21
2000 MHz	14,7	4,48
2400 MHz	16,3	4,97
3000 MHz	18,7	5,70
4000 MHz	22,3	6,80
5000 MHz	25,7	7,84
6000 MHz	28,8	8,78

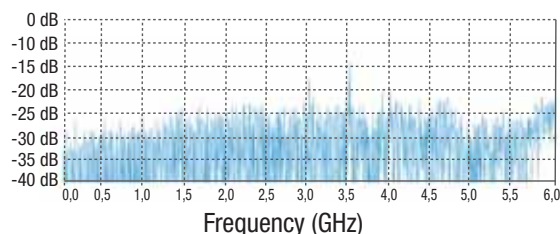
## For your information

	ECOFLEX 15	RG 213/U	RG 58/U
Capacity pF/m	77	101	102
Velocity factor	0,86	0,66	0,66
attenuation dB/100 m			
10 MHz	0,86	2,0	5,0
100 MHz	2,81	7,0	17,0
500 MHz	6,7	17,0	39,0
1000 MHz	9,8	22,5	54,6
3000 MHz	18,7	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. 6086

