

# Ecoflex® 15



## Ecoflex® 15 - low loss coaxial cable for radio communication

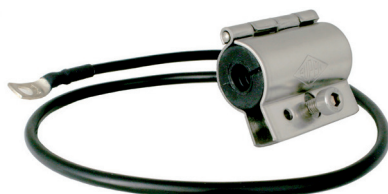
Ecoflex 15 is a flexible low-loss coaxial cable for use in the frequency range of DC - 6 GHz. Its unique construction combines the low loss properties found in non-flexible solid center conductor hardline cables with the high flexibility of cables manufactured with stranded center conductors. Advanced 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.

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An EMI screening immunity of > 90 dB @ 1 GHz is achieved through the use of double shielding which consists of overlapping copper foil and an additional tight woven copperbraid. The copperfoil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC sheath of Ecoflex 15 is UV-stabilized. It is the 1st choice when a low loss, highly flexible microwave rated cable is required. Ecoflex 15 is available from stock in the following standard drum sizes: 25 m, 50 m, 100 m, 200 m and 500 m.

### Ecoflex® 15 characteristics

Diameter .....	14,6 mm
Impedance .....	50 Ω
Attenuation @ 1 GHz/100 m .....	9,8 dB
fmax .....	6 GHz



Grounding Clamp for Ecoflex® 15, Part.-No. 6915



# Ecoflex®15

## Technical data

Centre conductor ... stran. copper, oxygen free, 7 x 1,55 mm		
Centre conductor Ø	4,5 mm	
Dielectric	PE, low-loss Compound	
Dielectric Ø	11,3 mm	
Outer conductor 1	copperfoil, PE-coated	
Shielding factor	100 %	
Outer conductor 2	copper braid	
Shielding factor	72 %	
Sheath	black PVC, UV-resistant	
Outer diameter Ø	14,6 mm	
Weight	258 g/m	
Min. bending radius .. one single bending	70 mm	
	15 repeated bendings	140 mm
Temperature range ... storage	-70 to +85°C	
	installation	-40 to +60°C
	operation	-55 to +85°C
Pulling strength	12 daN	

## Electrical specifications

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

### Ecoflex 15 RG 213/U RG 58/U

Capacity	77 pF/m	101 pF/m	102 pF/m
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

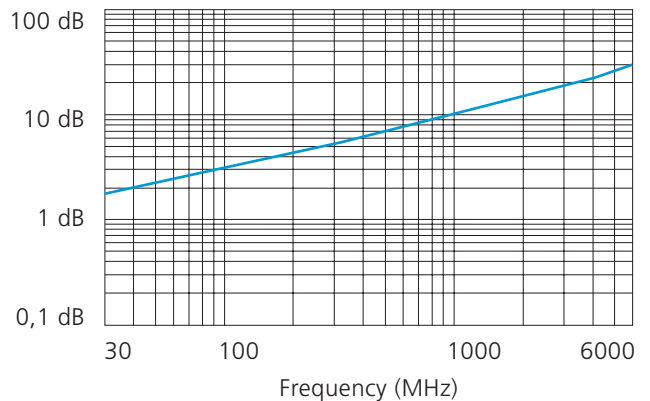
## Typ. attenuation (dB/100 m @ 20°C)

5 MHz	0,6	1000 MHz	9,8
10 MHz	0,86	1296 MHz	11,4
50 MHz	1,96	1500 MHz	12,4
100 MHz	2,81	1800 MHz	13,8
144 MHz	3,4	2000 MHz	14,7
200 MHz	4,05	2400 MHz	16,3
300 MHz	5,0	3000 MHz	18,7
432 MHz	6,1	4000 MHz	22,3
500 MHz	6,7	5000 MHz	25,7
800 MHz	8,6	6000 MHz	28,8

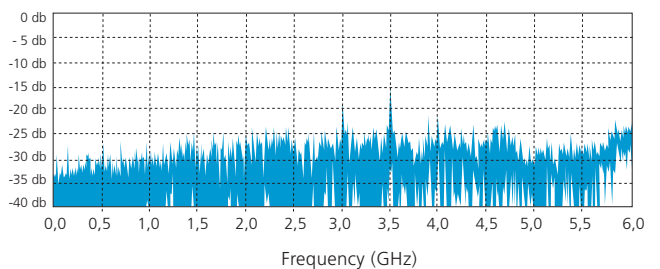
## Max. power handling (W @ 40°C)

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

## Typ. Attenuation (dB/100 m) @ 20°C



## Typ. Return loss



Due to production tolerances the RTL may have different characteristics.