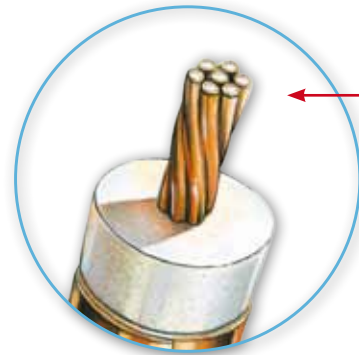


# Ecoflex 10 Plus



Stranded center conductor with aluminium core and welded copper shield

## Ecoflex 10 Plus – ultraflexible and low loss coaxial cable

Ecoflex 10 Plus is a flexible, low-loss coaxial cable specifically designed for use up to 8 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 Plus sets standards among flexible coaxial cables. The high flexibility of Ecoflex 10 Plus is guaranteed by a 7-wire Hybrid inner conductor with aluminium core and welded copper shield. Use of proprietary techniques, continuous center conductor calibration and compression as well as the application of a pre-coating results in low losses and good impedance matching. Further advantages of the cable include the use of double shielding, which is constructed of overlapping copper foil plus an additional tight woven copper braid.

A screening efficiency of > 90 dB @ 1 GHz is realized. The copper foil has an applied PE coating, which prevents foil cracking due to short radius bends. The black PVC sheath of Ecoflex 10 Plus is UV stabilized. In addition to a full complement of standard connectors, an easy to use solder free N-connector has been specially developed for Ecoflex 10 Plus. The connector installation only takes a few minutes and doesn't require any special tools. Ecoflex 10 Plus is the right choice when a low loss, highly flexible microwave rated cable is required.

Available standard lengths 25 m, 50 m, 100 m, 200 m, 500 m.



Grounding clamp for Ecoflex 10 Plus, part. no. 6810

### Ecoflex 10 Plus characteristics

Diameter	10.2 mm
Impedance	50 Ω
Attenuation @ 1 GHz/100m	14.0 dB
fmax	8 GHz

### Technical data

Centre conductor	Hybrid, aluminium core 7 x 1.0 mm
Centre conductor Ø	2.85 mm
Dielectric	PE, low-loss compound
Dielectric Ø	7.25 mm
Outer conductor 1	copper foil, PE coated
Shielding factor	100 %
Outer conductor 2	copper braid
Shielding factor	72 %
Sheath	black PVC, UV-resistant
Outer diameter Ø	10.2 mm
Weight	103 g/m
Min. bending radius .. one single bending	40 mm
15 repeated bendings	80 mm
Temperature range .. storage	-70 to +85°C
installation	-40 to +60°C
operation	-55 to +85°C
Pulling strength	4 daN

### Electrical specifications

Impedance	50 Ω
Capacity	78 pF/m
Velocity factor	0,85
fmax	8 GHz
Screening efficiency @ 1 GHz	> 90 dB
DC-resistance: Centre conductor	5.4 Ω/km
Outer conductor	8.4 Ω/km
RF peak voltage	1kV

### Ecoflex 10 Plus RG 213/U RG 58/U

Capacity	78 pF/m	101 pF/m	102 pF/m
Velocity factor	0.85	0.66	0.66
Attenuation (dB/100 m)			
10 MHz	1.3	2.0	5.0
100 MHz	4.1	7.0	17.0
500 MHz	9.6	17.0	39.0
1000 MHz	14.0	22.5	54.6
3000 MHz	26.0	58.5	118

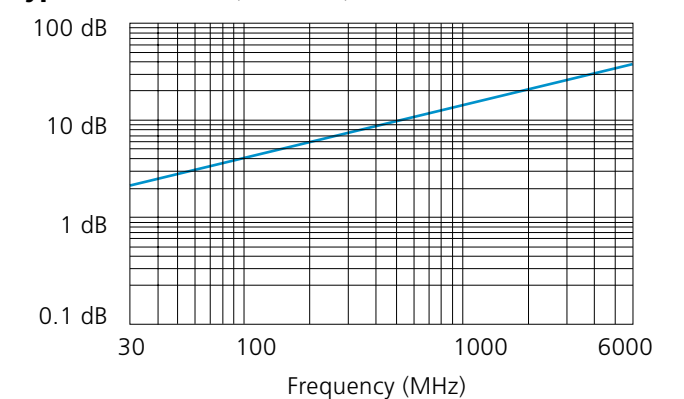
### Typ. attenuation (dB/100 m @ 20°C)

5 MHz	0.9	1000 MHz	14.0
10 MHz	1.3	1296 MHz	16.2
50 MHz	2.85	1500 MHz	17.6
100 MHz	4.1	1800 MHz	19.5
144 MHz	5.0	2000 MHz	20.6
200 MHz	5.9	2400 MHz	22.9
300 MHz	7.4	3000 MHz	26.0
432 MHz	8.9	4000 MHz	30.7
500 MHz	9.6	5000 MHz	35.1
800 MHz	12.4	6000 MHz	39.1
		8000 MHz	46.6

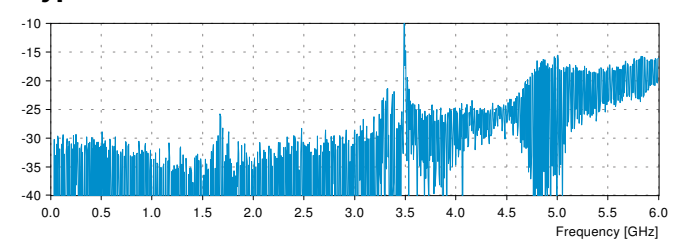
### Max. power handling (W @ 40°C)

10 MHz	3860	3000 MHz	190
100 MHz	1190	4000 MHz	160
500 MHz	510	5000 MHz	140
1000 MHz	350	6000 MHz	130
2000 MHz	240		

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



### Typ. return loss



Due to production tolerances the return loss may have different characteristics.