

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 _{max} | 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 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.

ECOFLEX 15 is the 1st choice when a low loss, highly flexible microwave rated cable is required. It's 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

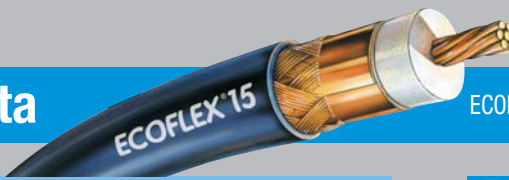


Art.-Nr. 7397 N-plug, female, solderless



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 |

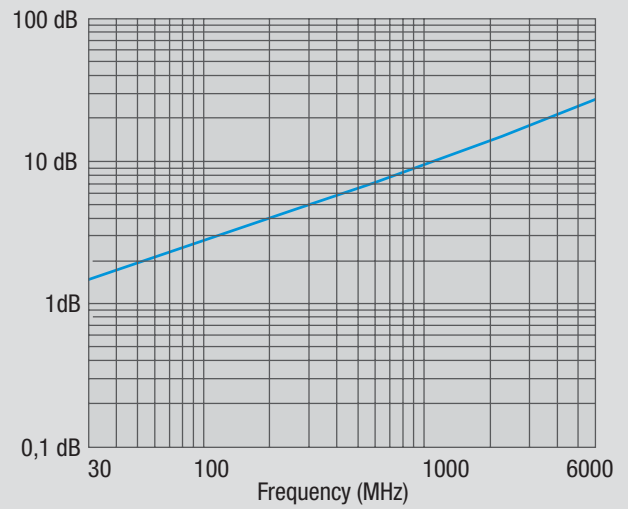
Typ. attenuation (dB/100m@20°C) dB/100ft @20°C

| | | |
|----------|------|------|
| 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 |

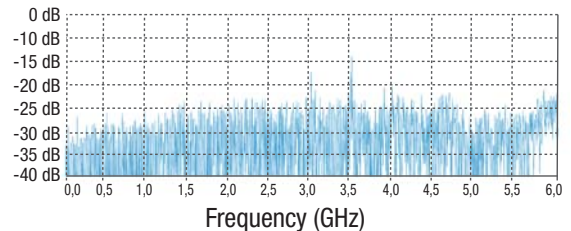
For your information

| | 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



Handwerkerstraße 19
D-58638 Iserlohn/Germany
Telefon (02371) 9590-0
Telefax (02371) 9590-20
info@ssb.de
www.ssb.de

