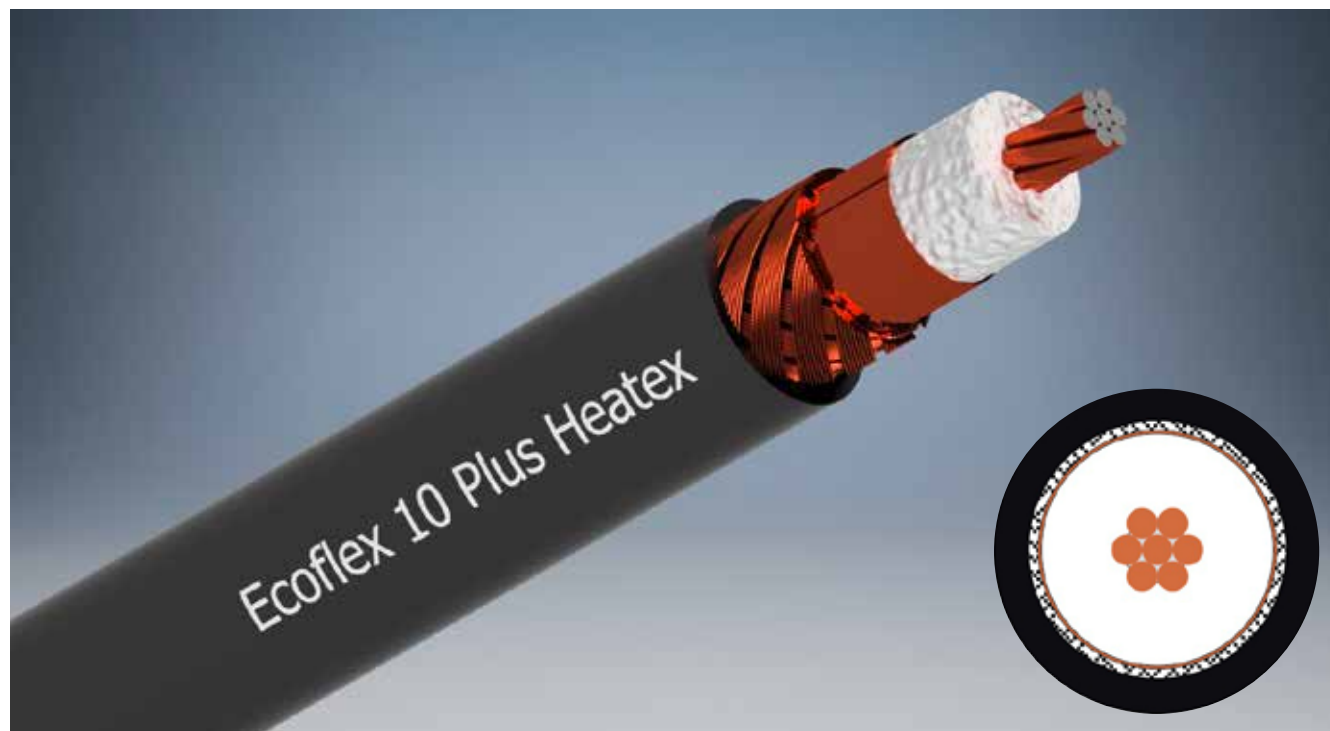


Ecoflex® 10 Plus Heatex®

flame retardant, free of halogen and qualified for use in public buildings and railway applications



Ecoflex 10 Plus Heatex is a flame retardant and halogen-free coaxial cable for use in public buildings. Ecoflex cables with Heatex jackets are flame retardant and have low fire propagation properties. They emit limited smoke, so that escape and emergency routes remain visible in case of fire. Heatex jackets are free of halogen and contain no reactive elements such as fluorine, chlorine and bromine. Ecoflex Plus Heatex cables reduce flame spread drastically allowing people more time to escape areas of fire. Ecoflex Plus Heatex cables feature UV stabilization and are suitable for both indoor and outdoor use. Ecoflex 10 Plus Heatex uses a hybrid CCA inner conductor containing 7 stranded copper-clad aluminium wires. Each wire has an aluminium core covered by copper cladding which combines copper's good electrical conductivity and aluminium's light weight. Another advantage of Ecoflex 10 Plus Heatex is its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz. With the fire protection rating Cca Ecoflex 10 Plus Heatex is approved for installation in public buildings. Ecoflex 10 Plus Heatex is certified for railway applications for interior and exterior use according to requirement sets R15 and R16 of the EN45545-2 standard.

Key features

Diameter	10,2 ± 0,2 mm
Impedance	50 ± 2 Ω
Attenuation at 1 GHz/100 m	13,49 dB
f max	8 GHz
Euroclass acc. to EN 50575	Cca

Characteristics

Certified according to EN 45545-2:2013+A1:2015 and EN 45545-2:2020 requirement sets R15 + R16 for railway applications

Flame retardancy tested according to EN 60332-1-2:2004 + A1:2015 + A11:2016 and EN 60332-1-3:2004 + A1:2015

Smoke density tested according to DIN EN 61034-2:2005

Smoke toxicity tested according to EN 50305:2002 Section 9.2

Vertical flame propagation tested according to EN 50305:2002 Section 9.1.1. (for cables with 12 mm > Ø > 6 mm)

Halogen-free tested according to DIN EN 50306-1:2003

Halogen acid gas content tested according to DIN EN 60754-1:2015 (HCl < 0,5%)

Acidity of gases tested according to DIN EN 60754-2:2015 (pH value > 4,3)

Conductivity of gases tested according to DIN EN 60754-2:2015 (< 10,0 µS/mm)

Fluorine content tested according to EN 60684-2:2011 Clause 45.2 Procedure A (< 0,1%)

Jacket material according to DIN EN 50290-2-27 (HD 624.7)

RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)

Low Smoke, Fire retardant, Zero Halogen (LSZH)

UV-resistant

Technical data

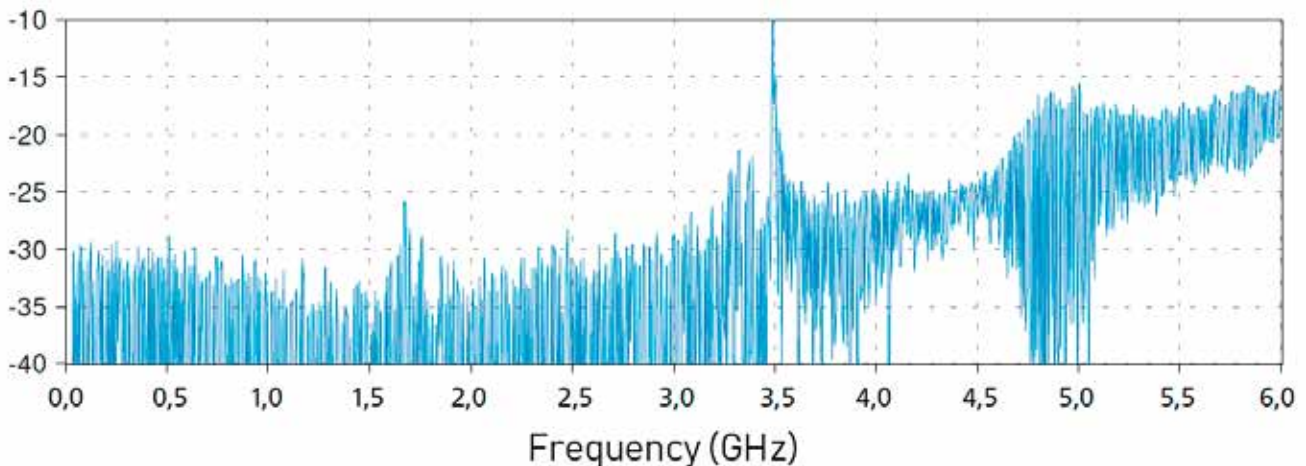
Inner conductor	Hybrid CCA – stranded copper-clad aluminium wire
Inner conductor Ø	2,85 mm (7 x 1,0 mm, 10 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	7,2 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	75%
Outer conductor Ø	7,9 mm
Jacket	highly flexible thermoplastic copolymer (FRNC) black
Weight	106 kg/km
Min. Bending radius	4XØ single, 8XØ repeated
Temperature range	-55 to +85°C Transport & fixed installation -40 to +85°C Flexible use
Pulling strength	600 N

Electrical data at 20°C

Capacity (1 kHz)	78 nF/km
Velocity factor	0,85
Screening attenuation 1 GHz	≥ 90 dB
DC-resistance Inner conductor	≤ 5,1 Ω/km
DC-resistance Outer conductor	6,6 Ω/km
Insulation resistance	≥ 10 GΩ*km
Test voltage DC (wire/screen)	7 kV
Max. Voltage	5 kV

	Ecoflex 10 Plus Heatex	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/100m)			
10 MHz	1,14	2,00	5,00
100 MHz	3,80	7,00	17,00
500 MHz	9,12	17,00	39,00
1000 MHz	13,49	22,50	54,60
3000 MHz	25,37	58,50	118,00

Typ. Return loss



Typ. Attenuation (db/100 m at 20°C)

5 MHz	0,76	1000 MHz	13,49
10 MHz	1,14	1296 MHz	15,68
50 MHz	2,66	1500 MHz	17,01
100 MHz	3,80	1800 MHz	18,91
144 MHz	4,66	2000 MHz	20,14
200 MHz	5,51	2400 MHz	22,42
300 MHz	6,94	3000 MHz	25,37
432 MHz	8,46	4000 MHz	29,55
500 MHz	9,12	5000 MHz	33,44
800 MHz	11,88	6000 MHz	37,05
		8000 MHz	44,08

Max. Power handling (W at 40°C)

10 MHz	3.100	2400 MHz	175
100 MHz	960	3000 MHz	154
500 MHz	413	4000 MHz	130
1000 MHz	285	5000 MHz	115
2000 MHz	194	6000 MHz	100
		8000 MHz	86

Typ. Attenuation (db/100 m at 20°C)

