



### CONTACT

Markets and Products Information  
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### MEDIUM VOLTAGE ROOF CABLES

For inside and outside use in railway vehicles. Installation in cable ducts or tubes. Available on request: HV loop, completely pre-assembled flexible cables with plugs and sealing ends, electrically tested.

### STANDARDS

Product EN 45545-2 (HL3); EN 50264-1; IEC 60502

### DESIGN

1. Conductor: Flexible stranded tinned copper, class 5 acc. to IEC 60228
2. Inner semi-conductive layer: Conductive rubber
3. Insulation: Cross-linked compound type EI 110 acc. to EN 50264-1
4. Outer conductive layer: Conductive rubber easy to strip
5. Screen: Conductive tape + tinned single wires with separator
6. Outer sheath: Cross-linked compound type EM104 acc. to EN 50264-1. Oil, diesel, ozone and UV resistant. Colour: black

Example of cable marking: FLAMEX PANTO – LEAD FREE - 1x [conductor nominal cross section] / [geometrical screen cross-section] 26/45kV | LYNXEO | WEEK/YEAR batch-no

### GUIDE TO USE

- Cabling rules are given in EN 50343 and EN 50355
- Bending radius:
  - Static use: 5 x outer cable diameter
  - For installation and occasional movements: 10 x outer cable diameter



Conductor flexibility  
Flexible class 5



Halogen free  
EN 60754-1 & EN 60684-2



Rated Voltage U<sub>0</sub>/U  
(Um)  
26 / 45 (54) kV



Flame retardant  
EN 60332-1-2



Fire retardant  
IEC 60332-3-24  
(cat C)



Smoke density  
EN/IEC 61034-2



Gases toxicity  
EN 50305-9.2



Operating temp.  
-40 ... 90 °C

## CHARACTERISTICS

### Construction characteristics

Conductor material	Tin plated copper
Conductor flexibility	Flexible class 5
Insulation	Cross-linked compound
Screen	Tin plated copper wires
Outer sheath	Cross-linked compound
Halogen free	EN 60754-1 & EN 60684-2

### Electrical characteristics

Rated Voltage U <sub>0</sub> /U (U <sub>m</sub> )	26 / 45 (54) kV
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### Usage characteristics

Flame retardant	EN 60332-1-2
Fire retardant	IEC 60332-3-24 (cat C)
Smoke density	EN/IEC 61034-2
Gases toxicity	EN 50305-9.2
Operating temperature, range	-40 ... 90 °C
Oil resistance	Yes
Ozone resistance	Yes
U.V resistance	Yes

## PRODUCTS LIST

Reference	Name	Cross section [mm <sup>2</sup> ]	Screen section [mm <sup>2</sup> ]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
79477908	FLAMEX® PANTO LEAD-FREE 50mm <sup>2</sup>	50	16	34.0	36.0	2100
79477912	FLAMEX® PANTO LEAD-FREE 95mm <sup>2</sup>	95	16	40.0	42.0	2500
79477916	FLAMEX® PANTO LEAD-FREE 150mm <sup>2</sup>	150	16	41.0	43.0	3200
79477918	FLAMEX® PANTO LEAD-FREE 185mm <sup>2</sup>	185	25	42.0	44.0	3600
79477919	FLAMEX® PANTO LEAD-FREE 240mm <sup>2</sup>	240	25	45.0	48.0	4300