



FIRE RESISTANT HIGH TEMPERATURE EXTRA-FLEXIBLE POWER CABLES

FLAMEX® FR TYPE EN 50382-2 power cables maintain circuit integrity in case of fire (according to IEC 60331-4 for 90 minutes) and are fire retardant, low smoke and halogen-free satisfying performance requirements form EN 45545-2. Able to withstand higher operating temperatures, these silicone-based cables allow to save weight.

STANDARDS

Product EN 45545-2 (HL3); EN 50382-2; IEC 60228

DESIGN

1. Conductor

Extra flexible class 6 copper according to IEC 60228

* tinned copper for 120°C Class

* plain copper for 150°C Class

2. Insulation

Fire barrier

Cross-linked silicone compound type EI 111 according to EN 50382-1

Colour: black outer layer

Example of marking: FLAMEX SI-FR - Type EN 50382-2 - Voltage rate (1800V or 3600V) - cross-section mm² - FX - temperature class (150°C) - LYNXEO 279 - week/year

CONTACT

Markets and Products Information
rollingstock.business@lynxeogroup.com

GUIDE TO USE

- Cabling rules are given in EN 50343 and EN 50355
- Permissible current carrying capacities: values and calculation method are given in EN 50343
- Bending radius:
 - Static use: 4 x outer cable diameter
 - For installation and occasional movements: 6 x outer cable diameter
- Pulling tensible force (dynamic) during installation: 50 N/mm² of copper size
- Mechanical static tensible force: 15N/mm² of copper size



Conductor flexibility
Extra-flexible
class 6



Halogen free
EN 60754-1 & EN
60684-2



Rated Voltage U_o/U
(Um)
3.6 / 6 (7.2) kV



Fire resistant
prIEC 60331-4



Flame retardant
EN 60332-1-2



Fire retardant
EN IEC 60332-3-24
(cat C); EN IEC
60332-3-25
(EN50305)



Smoke density
EN/IEC 61034-2



Gases toxicity
EN 50305-9.2

CHARACTERISTICS**Construction characteristics**

Conductor material	Plain copper
Conductor flexibility	Extra-flexible class 6
Insulation	High temperature silicone
Halogen free	EN 60754-1 & EN 60684-2

Dimensional characteristics

Conductor cross-section	35 mm ²
Number of wires per conductor	-
Wire size	- mm
Conductor diameter	8.1 mm
Nominal outer diameter	15.0 mm
Minimum outer diameter	13.4 mm
Maximum outer diameter	15.2 mm
Approximate weight	470 kg/km
Average sheath thickness	- mm

Electrical characteristics

Rated Voltage U _o /U (U _m)	3.6 / 6 (7.2) kV
---	------------------

Usage characteristics

Fire resistant	prIEC 60331-4
Flame retardant	EN 60332-1-2
Fire retardant	EN IEC 60332-3-24 (cat C); EN IEC 60332-3-25 (EN50305)
Smoke density	EN/IEC 61034-2
Gases toxicity	EN 50305-9.2
Operating temperature, range	-50 ... 150 °C
Max. conductor temperature in service	170 °C
Chemical resistance	Good