



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



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 temp.
-50 ... 150 °C

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

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



Conductor flexibility
Extra-flexible class 6



Halogen free
EN 60754-1 & EN 60684-2



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 temp.
-50 ... 150 °C

FLAMEX® FR TYPE EN 50382-2 FX 1800V 150°C

Reference	Cross section [mm ²]	Conductor diam. [mm]	Nom. outer diam. [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	35	8.1	13.5	12.5	14.1	428
	50	9.4	14.8	13.9	15.8	547
	70	11.4	16.8	15.6	17.8	743
	95	12.9	18.7	17.4	19.9	1015
	120	14.4	20.2	19.0	21.7	1170
	150	17.1	22.9	20.5	23.5	1532
	185	18.3	24.1	22.1	25.4	1782
	240	21.4	27.2	24.5	28.2	2574

FLAMEX® FR TYPE EN 50382-2 FX 3600V 150°C

Reference	Cross section [mm ²]	Conductor diam. [mm]	Nom. outer diam. [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	35	8.1	15.0	13.4	15.2	470
	50	9.4	16.3	14.8	16.9	594
	70	11.4	18.2	16.5	18.9	794
	95	12.9	19.7	17.9	20.5	1058
	120	14.4	21.8	19.7	22.6	1224
	150	17.1	24.1	21.2	24.4	1593
	185	18.3	25.5	23.0	26.5	1855
	240	21.4	29.0	26.0	29.8	2679