



Country Ref.: 2PH553

### CONTACT

Markets and Products Information  
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## COMMUNICATION CABLES

Lynxéo produces a range of optical fiber cables OM3 (50/125 μm) for onboard communication and data transmission. With its halogen-free cross-linked sheathing material the FLAMEX® optical fiber cables conform to the rolling stock requirements.

### STANDARDS

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

### DESIGN

#### 1. Patch cord

- . Core: glass OM 3 (diameter = 50μm)
- . Cladding: glass (diameter = 125 ± 3 μm)
- . Coating: acrylate (diameter = 245 ± 10 μm)
- . Buffer: Thermoplastic elastomer (diameter = 900 ± 50 μm)
- . Reinforcement: Aramid yarns
- . Sheath: Cross-linked halogen-free acc. to EN 50264-1 type EM 104 or EM 101 (diameter = 2.00 ± 0.15 mm)

#### 2. Tape(for multi-fibers)

#### 3. Outer sheath

Cross-linked halogen-free acc. to EN 50264-1 type EM 104 or EM101

Example of marking: FLAMEX - Part number - number of fiber x 50/125 - month and year of production

### GUIDE TO USE

- Bending radius:
  - Static use: 8 x outer cable diameter
  - For installation and occasional movements: 10 x outer cable diameter



Halogen free  
 EN 60754-1 & EN 60684-2



Cable flexibility  
 Flexible



Flame retardant  
 IEC/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



Chemical resistance  
 Excellent



Electro magnetic interference resistance  
 Yes

**CHARACTERISTICS****Construction characteristics**

Fiber optic type	OM3 50/125
Outer sheath	Cross-linked compound
Halogen free	EN 60754-1 & EN 60684-2

**Dimensional characteristics**

Number of optical fibres	8
Approximate weight	80 kg/km
Outer Diameter	8.5 mm

**Electrical characteristics**

Characteristic impedance	- Ohm
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**Transmission characteristics**

Attenuation, nom. 1300 nm (cabled)	1.5 dB/1000m
Attenuation, nom. 850 nm (cabled)	3.5 dB/1000m

**Mechanical characteristics**

Maximum tensile strength dynamic	1000 N/mm <sup>2</sup>
Maximum tensile strength static	2000 N/mm <sup>2</sup>
Cable flexibility	Flexible
Crush resistance (IEC 60794-1-E3)	250 N/cm

**Usage characteristics**

Flame retardant	IEC/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
Chemical resistance	Excellent
Electro magnetic interference resistance	Yes
Minimum dynamic operating bending radius	170.0 mm
Minimum static operating bending radius	85 mm