

K27 Fire Resisting Control Cables (CR1-C1 Class)

Applications

The cables are designed to provide circuit integrity for safety lighting, smoke extraction, ventilation, emergency telephone and exits during fire for underground railways.

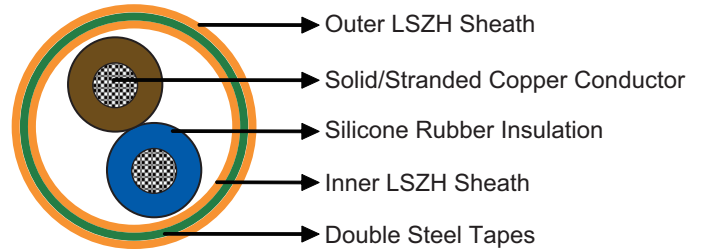


Standards

- RATP K27 specification
- Fire resistant: class CR1
- No fire propagation: class C1 RATP (<30cm)

Construction

- Conductors: Class 1 solid conductor from 1.5mm² to 4mm²; class 2 stranded conductor for 6mm².
- Insulation: Silicone rubber insulation.
- Stranding: Cores are helically stranded in concentric layers.
- Inner Sheath: LSZH.
- Armour: Two layers of steel tape.
- Outer Sheath: LSZH.



Electrical Characteristics at 20°C

Number of strands/Nominal Conductor Diameter	mm	7/1.04	1/1.39	1/1.79	1/2.25
Nominal Cross Section Area	mm ²	6	1.5	2.5	4
Nominal Insulation Thickness	mm	1.0	0.8	1.0	1.0
Operating Voltage	V	300/500			

Mechanical and Thermal Properties

- Minimum Bending Radius: 5×OD (static); 10×OD (dynamic)
- Temperature Range: -10°C to +90°C (during operation); -10°C to +60°C (during installation)



Dimensions and Weight

Cable Code	Number of Cores	Nominal Sheath Thickness mm		Maximum Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
7/1.04mm Conductor, 4.76mm Insulated Wire					
RS/K27-SZ1F3Z1-U(AS+)-2G6	2	1.0	1.5	17.0	406
1/1.39mm Conductor, 2.99mm Insulated Wire					
RS/K27-SZ1F3Z1-U(AS+)-2G1.5	2	1.0	1.5	11.3	200
RS/K27-SZ1F3Z1-U(AS+)-3G1.5	3	1.0	1.5	12.5	237
RS/K27-SZ1F3Z1-U(AS+)-12G1.5	12	1.0	1.5	18.9	596
1/1.79mm Conductor, 3.79mm Insulated Wire					
RS/K27-SZ1F3Z1-U(AS+)-2G2.5	2	1.0	1.5	13.2	265
RS/K27-SZ1F3Z1-U(AS+)-3G2.5	3	1.0	1.5	13.5	309
1/2.25mm Conductor, 4.26mm Insulated wire					
RS/K27-SZ1F3Z1-U(AS+)-2G4	2	1.0	1.5	14.7	325
RS/K27-SZ1F3Z1-U(AS+)-3G4	3	1.0	1.5	15.6	411



Impact Resistant



Mineral Oil Resistant



Acid & Alkaline Resistant



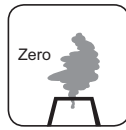
Laid In conduit



Flame Retardant
NF C32-070-2.1(C2)
IEC 60332-1/EN 50265-2-1



Fire Retardant
NF C32-070-2.2(C1)
IEC 60332-3/EN 50266



Zero Halogen
IEC 60754-1/NF C20-454
EN 50267-2-1



Low Smoke Emission
IEC 61034/NFC20-902
EN 50268/NF C32-073



Low Corrosivity
EN 50267-2-2/NF C32-074
IEC 60754-2/NF C20-453



Low Toxicity



Insulation Integrity FE180
EN 50200/IEC 60331
/NF C32-070-2.3(CR1)



MD4 Fire Resisting Telecom Cables (CR1-C1 Class)

Applications

The cables are telecommunication cables for tunnel application. The cables are halogen free fire resistant, inductive protected and armoured.

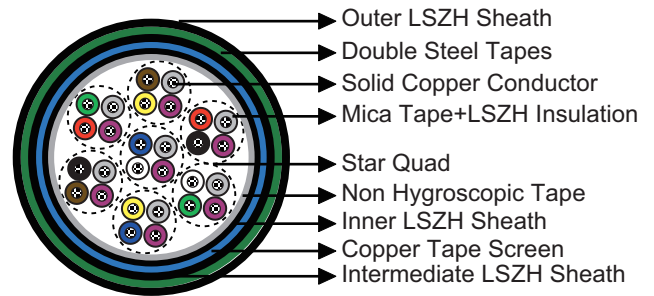


Standards

- Fire retardant: NBN C 30-004 F2
- Fire resistant: NBN 713-020 Add.3. -RF 1h

Construction

- Conductors: Solid copper conductor, 0.5mm² nominal cross section area.
- Insulation: Mica-tape + LSZH insulation.
- Cabling Element: Four conductors are twisted to form a quad.
- Stranding: Quads are helically stranded in concentric layers.
- Core Wrapping: Plastic tape(s) with overlapping.
- Inner Sheath: LSZH sheath.
- Screen: Copper tape screen.
- Intermediate Sheath: LSZH sheath.
- Armour: Two layer of steel tape.
- Outer Sheath: LSZH sheath.



Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.8
Nominal Cross Section Area	mm ²	0.5
Nominal Insulation Thickness	mm	0.5
Maximum Conductor Resistance (DC)	Ω/km	36.7
Minimum Insulation Resistance	MΩ.km	100
Maximum Capacitance	nF/km	120
Voltage Test 2 mins	KV _{ac}	0.5

Mechanical and Thermal Properties

- Minimum Bending Radius: 10×OD
- Temperature Range: -40°C to +60°C (during operation); -10°C +60°C (during installation)



Dimensions and Weight

Cable Code	No. of Quads	Nominal Sheath Thickness mm			Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Interm.	Outer		
0.8mm Conductor, 1.8mm Insulated Wire						
RS/MD4-HH(K)HBH-7Q0.8-FR	7	1.0	1.0	1.8	30.7	1074



Anti Induction



Rated Voltage



Laid In Ducts



Buried in Ciround



Flame Retardant
NF C32-070-2.1(C2)
IEC 60332-1/EN 50265-2-1



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