

15371000	DATA SHEET	
Valid from: 2023-11-15	ÖLFLEX® TRAIN 371 1.8kV	

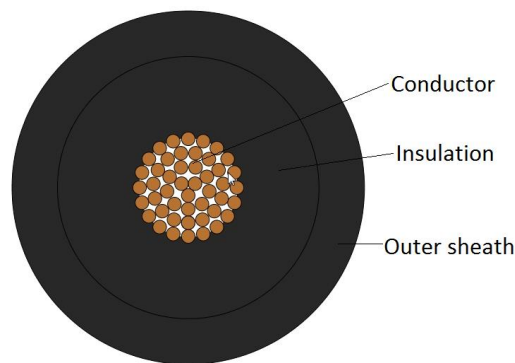
Application

ÖLFLEX® TRAIN 371 are halogen-free, highly flame retardant cables for use in railway vehicles. They are designed for fixed installation and for applications, where limited movement may occur. They are particularly used in areas, where human and animal life as well as valuable property are exposed to high risk of fire hazards. ÖLFLEX® TRAIN 371 are oil-, fuel-, acid- and alkali resistant acc. to EN 50264-3-1.

Application range:

railway vehicles: connecting lamps, heating equipment, switchgear, terminal boxes and power supply

Design



Design	acc. to EN 50264-3-1 1800V, MM
Norm references	EN 50264-3-1. Code designation MM MM = extra low temperature, extra oil and fuel resistant
Classification	EN 45545-2: Hazard Level HL1, HL2, HL3 NF F 16-101: Internal Category A1, A2, B External Category A1, A2, B Category C for flame propagation Category F1 for smoke
Conductor	fine wire strands of tinned copper acc. to IEC 60228 resp. EN 60228, Class 5
Core isolation	electron beam cross-linked polymer compound EI 109 acc. to EN 50264-1
Core identification	black
Outer sheath	electron beam cross-linked polymer compound, halogen free and flame retardant, EM 104 acc. to EN 50264-1 colour: black, similar RAL 9005

Electrical properties at 20 °C

Nominal voltage	U_0 / U : 1.8/3 kV AC U_m : 3.6 kV AC
Max. permissible operating voltage	: 3.6 kV AC V_0 : 2.7 kV DC
Test voltage	6.5 kV AC; 15 kV DC

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Mechanical and thermal properties

Min. bending radius	Cable diameter \leq 12.0 mm for cautions bending: 3 x outer diameter (one bend at end of core) fixed installation: 4 x outer diameter occasional flexing: 5 x outer diameter
	Cable diameter $>$ 12.0 mm for cautions bending: 4 x outer diameter (one bend at end of core) fixed installation: 5 x outer diameter occasional flexing: 6 x outer diameter
Temperature range	fixed installation: -45 °C up to +120 °C max. conductor temp. (20.000h) occasional flexing: -35 °C up to +120 °C max. conductor temp. (20.000h)
	- 50° acc. to GOST 33326-2015 and GOST 20.57.406-81 (method 203-1 und 205-1)
Short circuit temperature	max. +200°C (5s)

Fire protection acc. to EN 50264-1 / EN 45545-2:

Classification	EN 45545-2: Hazard Level HL1, HL2, HL3
Flammability	Flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
	No flame propagation acc. to: \geq 12 mm: IEC 60332-3-24 resp. EN 60332-3-24 $>$ 6 mm and $<$ 12mm: IEC 60332-3-25 resp. EN 60332-3-25 \leq 6 mm: EN 50305
Smoke density	acc. to EN 50264-1, light transmission: min. 70% acc. to IEC 61034-2 resp. EN 61034-2
Halogen-free	acc. to IEC 60754-1 resp. EN 60754-1 (chlorine and bromine) acc. to EN 60684-2 (fluorine)
Corrosivity	acc. to EN 50264-1, pH \geq 4.3 and conductivity \leq 10 μ S/mm acc. to IEC 60754-2 resp. EN 60754-2
Toxicity	acc. to EN 50264-1 (\leq 3) acc. to EN 50305

Fire protection acc. to NF:

Classification	NF F 16-101: Internal Category A1, A2, B External Category A1, A2, B Category C for flame propagation Category F1 for smoke
Flammability	acc. to NF C 32-070, Category C1 and C2
Smoke density	acc. to NF X 10-702
Toxicity	acc. to NF X 70-100

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Material properties

Ozone resistance	acc. to EN 50264-3-1, method B acc. to EN 50305
Mineral oil resistance	acc. to EN 50264-3-1
Fuel resistance	acc. to EN 50264-3-1
Acid and alkali resistance	acc. to EN 50264-3-1
UV resistance	Acc. to EN 50525-1 are cables with black sheath suitable for a permanent outdoor use.
Tests	acc. to EN 50264-3-1
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

Art. No.	Conductor cross section [mm ²]	Max. wire ø [mm]	Max. conductor resistance (20°C) [Ohm/km]	Conductor ø reference value [mm]	Core ø reference value [mm]	Outer ø [mm]	Fire load reference value [kJ/m]	Weight [kg/km]
15371000	1.5	0.26	13.7	1.6	4.2	5.9 ± 0.2	674	57
15371001	2.5	0.26	8.21	2.0	4.6	6.2 ± 0.2	697	67
15371002	4	0.31	5.09	2.7	5.3	6.7 ± 0.2	836	90
15371003	6	0.31	3.39	3.2	5.8	7.3 ± 0.2	946	116
15371004	10	0.41	1.95	4.2	7.2	8.7 ± 0.2	1247	173
15371005	16	0.41	1.24	5.2	8.2	9.9 ± 0.3	1464	244
15371006	25	0.41	0.795	6.5	10.1	12.2 ± 0.3	2171	374
15371007	35	0.41	0.565	7.7	11.3	13.4 ± 0.3	2462	488
15371008	50	0.41	0.393	9.7	13.3	15,1 ± 0,3	2916	659
15371009	70	0.51	0.277	11.4	15.0	16.8 ± 0.3	3289	875
15371010	95	0.51	0.210	13.4	17.8	19.5 ± 0.4	4342	1180
15371011	120	0.51	0.164	15.0	19.4	21.0 ± 0.4	4682	1441
15371012	150	0.51	0.132	17.0	21.4	23.4 ± 0.4	5638	1788
15371013	185	0.51	0.108	18.5	23.3	25.2 ± 0.4	6318	2166
15371014	240	0.51	0.0817	22.0	26.8	28.0 ± 0.4	7630	2775
15371015	300	0.51	0.0654	23.2	28.0	30.2 ± 0.5	7889	3367

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