Application

ÖLFLEX® TRAIN HT 150 FX 3,6kV are single core silicone rubber insulated high temperature cables for railway rolling stock, having special fire performance.
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 HT 150 FX 3,6kV are ozone-, oil-, acid and alkali-resistant according to EN 50382-2.

Application range:
Railway vehicles: Wiring of control cabinets, distributors, converters, motors and batteries

Design

Design/type-standard	according to EN 50382-2, 3600V, code designation FX FX = low temperature resistant, oil-resistant, class 6 conductor
Classification	EN 45545-2: Hazard Level HL1, HL2, HL3
Conductor	extra-fine wire strands of tinned copper acc. to IEC/EN 60228 resp. VDE 0295, class 6
Separator	semi-conductive tape, black
Core insulation	silicone compound type EI 111 according to EN 50382-2
Core identification	black

Electrical properties

Nominal voltage	U_0/U: 3,6/6 kV AC
Max. permissible operating voltage	U_m: 7,2 kV AC V_0: 5,4 kV DC
Test voltage	core / core: 11 kV AC; 26 kV DC

Mechanical and thermal properties

Min. bending radius	fixed installation:	3 x cable diameter
	occasional flexing:	5 x cable diameter
Temperature range	-40 °C to +150 °C max. conductor temperature	
Short circuit temperature	max. +250°C (5s)	

Fire protection according to EN 50382-2 / EN 45545:

Classification	EN 45545-2: Hazard Level HL1, HL2, HL3
Flammability	acc. to EN 60332-1-2 resp. VDE 0482-332-1-2
No flame propagation acc. to	≥ 12 mm: EN 60332-3-24 / VDE 0482-332-3-24 > 6 mm and < 12mm: EN 60332-3-25 / VDE 0482-332-3-25

Smoke density	acc. to EN 50382-1, light transmission: min. 70% acc. to IEC/EN 61034-2
Halogen-free	acc. to IEC/EN 60754-1 (chlorine and bromine) acc. to EN 60684-2 (fluorine)
Corrosivity	acc. to EN 50382-1: pH ≥ 4.3 and conductivity ≤ 10µS/mm acc. to IEC/EN 60754-2
Toxicity	acc. to EN 50382-1 (≤ 3) acc. to EN 50305

Material properties

Ozone resistance	acc. to EN 50382-2 / EN 50305
Mineral oil resistance	acc. to EN 50382-2 / EN 60811-2-1
Acid and alkali resistance	acc. to EN 50382-2 / EN 60811-2-1
Tests	acc. to EN 50382-2

Article number	Conductor cross section [mm²]	Max. wire ø [mm]	Max. DC conductor resistance (20°C) [Ohm/km]	Conductor ø reference value [mm]	Core ø min. – max. [mm]	Weight [kg/km]
15382080	50	0,31	0,393	10,0	15,2 - 17,8	580
15382081	70	0,31	0,277	11,8	16,9 - 19,8	770
15382082	95	0,31	0,210	13,3	18,3 - 21,4	995
15382083	120	0,31	0,164	15,0	20,1 - 23,5	1240
15382084	150	0,31	0,132	16,6	21,6 - 25,3	1485
15382085	185	0,41	0,108	18,3	23,4 - 27,4	1830