











Motor cable | TPE | chainflex® CFPE

- For extremely heavy duty applications
- TPE outer jacket
- Oil-resistant, bio-oil-resistant
- Flame retardant
- UV-resistant
- Hydrolysis and microbe-resistant



Dynamic information

	Bend radius	e-chain® linear flexible fixed	minimum 7.5 x d minimum 6 x d minimum 4 x d
	Temperature	e-chain® linear flexible fixed	-35 °C to +90 °C -45 °C to +90 °C (following DIN EN 60811-504) -50 °C to +90 °C (following DIN EN 50305)
	v max.	unsupported	10 m/s
	a max.	gliding	6 m/s
	Travel distance	Unsupported travel distances and up to 400 m and more for gliding applications, Class 6	
	Torsion	± 90°, with 1 m cable length, Class 2	






Cable structure

	Conductor	Conductor consisting of pre-wound conductor bundles (following DIN EN 60228).	
	Core insulation	Mechanically high-quality TPE mixture.	
	Core identification	Green-yellow.	
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: Signal black (similar to RAL 9004)	

Electrical information

	Nominal voltage	600/1000 V (following DIN VDE 0298-3)
	Testing voltage	4000 V (following DIN EN 50395)

Properties and approvals

	UV resistance	High.
	Oil resistance	Oil resistant (following DIN EN 60811-404), bio-oil resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4.
	Flame retardant	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
	UL/CSA	Style 10492 and 21218, 1000 V, 80 °C

Class 6.6.4.2



NFPA



DNV-GL



EAC



CTP



CEI



Lead-free



Cleanroom



CE

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400 m
Oil resistance	none	1	2	3	4	5	6	7	highest
Torsion	none	1	2	3	4	5	6	7	± 180°

Following NFPA 79-2012 chapter 12.9.

Certified according to GL type testing – Certificate no.: 61 938-14 HH

Certificate no. RU C-DE.ME77.B.02324 (TR ZU)

Certificate no. C-DE.PB49.B.00420 (Fire safety)

Following CEI 20-35.

Following 2011/65/EU (RoHS-II).

According to ISO Class 1. Outer jacket material complies with CF34.UL.25.04.D, tested by IFA according to standard 14644-1.

Following 2014/35/EU.

Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12

* Higher number of double strokes? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For extremely heavy duty applications
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV resistant
- Unsupported travel distances and up to 400 m and more for gliding applications
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling equipment, Clean room, semiconductor handling, outdoor cranes, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFPE.15.01	1G1.5	4.5	15	29
CFPE.25.01	1G2.5	6.0	24	46
CFPE.40.01	1G4.0	6.5	39	63
CFPE.60.01	1G6.0	7.0	58	81
CFPE.100.01	1G10.0	8.0	96	123
CFPE.160.01	1G16.0	9.5	154	189
CFPE.250.01	1G25.0	11.5	240	284
CFPE.350.01	1G35.0	12.5	336	384
CFPE.500.01	1G50.0	14.5	480	535
CFPE.700.01	1G70.0	16.5	696	752
CFPE.950.01	1G95.0	20.0	917	1013

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

