

Motor cable | TPE | chainflex® CFFLAT

- For maximum mechanical load requirements
- TPE outer jacket
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Dynamic Information

	Bend radius	E-Chain® linear	min. 5 x d
		flexible	min. 4 x d
		fixed	min. 3 x d
	Temperature	E-Chain® linear	-31 °F to +194 °F (-35 °C to +90 °C)
		flexible	-58 °F to +194 °F (-50 °C to +90 °C)
		fixed	-67 °F to +194 °F (-55 °C to +90 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
		gliding	19.69 ft/s (6 m/s)
	a max.	328.1 ft/s² (100 m/s²)	
	Travel distance	Unsupported travel distances and for gliding applications up to 328.1 ft (100 m), Class 5	

Cable structure

	Conductor	Highly flexible braided special conductor.
	Conductor insulation	Mechanically high-quality TPE mixture.
	Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in E-Chains®. Color: Dark blue (similar to RAL 5011)

Electrical Information

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

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	1,312 ft +	
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	4	±360°			

Class 7.5.4.1

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
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	UL verified	Certificate No. B129699: igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year
	EAC	Certificate No. RU C-DE.ME77.B.02324 (TR ZU)
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
	CE	Following 2014/35/EU

Typical application areas

- For maximum mechanical load requirements, Class 7
- Unsupported travel distances and for gliding applications up to 328 ft (100 m), Class 5
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, small installation spaces, small radii, Machining units/machine tools, quick handling, Cleanroom, semiconductor insertion, low temperature applications

Part No.	AWG	Number of Conductors and rated cross section	Outer diameter max.		Copper index		Weight	
			[in.]	[mm]	[lbs/mft]	[kg/km]	[lbs/mft]	[kg/km]
CFFLAT-40-01	12	1 x 4.0	0.55x0.22	14x5.5	32.3	48	78.6	117

Note: The given outer diameters are maximum values.
G = with green-yellow earth core x = without earth core