PVC | iguPUR | PUR | **TPE**

Motor cable | TPE | chainflex® CF35.UL

New

10 million
Guaranteed double strokes

7.5 x d
Bend radius e-chain®

400 m
Travel distance, e-chain®

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

Optimised core insulation



Example image

Dynamic information

Bend radius	e-chain® linear	min. 7.5 x d
	flexible	min. 6 x d
	fixed	min. 4 x d
Temperature	e-chain® linear	-35 °C up to +90 °C
	flexible	-45 °C up to +90 °C (following DIN EN 60811-504)
	fixed	-50 °C up to +90 °C (following DIN EN 50305)
v max.	unsupported	10 m/s
	gliding	6 m/s
a max.		80 m/s²
Travel distance		Unsupported travels and up to 400 m and more for gliding applications, Class 6

Cable structure

Conductor	**Cores < 10 mm²:** Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). **Cores ≥ 10 mm²:** Conductor cable consisting of pre-leads (following DIN EN 60228).
Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
Core structure	Cores wound with a short pitch length around a high tensile strength centre element.
Core identification	Black cores with white numbers, one green-yellow core. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L- 4. Core: 4 / N
Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70 %, optical approx. 90 %
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)
CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket Video ▶ www.igus.eu/CFRIP

Electrical information

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

EPLAN download, configurators ▶ www.igus.eu/CF35.UL

EU04.2019

CF35.UL
TPE
7.5 x d

Class 6.6.4.1

Basic requirements	low	1	2	3	4	5	**6**	7	highest
Travel distance	unsupported	1	2	3	4	5	**6**	≥ 400 m	
Oil resistance	none	1	2	3	**4**	highest			
Torsion	none	**1**	2	3	4	±360°			

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	**Cores ≤ 1.5 mm²:** Style 10492 and 22188, 1000 V, 80 °C **Cores ≥ 2.5 mm²:** Style 10492 and 21184 or 21218, 1000 V, 80 °C
NFPA	Following NFPA 79-2018, chapter 12.9
DNV-GL	Type approval certificate No. 61 938-14 HH
EAC	Certificate No. RU C-DE.ME77.B.02324 (TR ZU)
CTP	Certificate No. C-DE.PB49.B.00420 (Fire protection)
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1
CE	Following 2014/35/EU

Guaranteed service life (details see 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? Service life calculation online ▶ www.igus.eu/chainflexlife

Typical mechanical application areas

- For extremely heavy duty applications, Class 6
- Unsupported travels and up to 400 m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling, Cleanroom, semiconductor insertion, outdoor cranes, low temperature applications

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Motor cable | TPE | chainflex® CF35.UL

New

Strip cables 50 % faster

Class 6.6.4.1

Basic requirements	low	1	2	3	4	5	**6**	7	highest	
Travel distance	unsupported	1	2	3	4	5	**6**		≥ 400 m	
Oil resistance	none	1	2	3	**4**				highest	
Torsion	none	**1**	2	3	4				±360°	

CF35.UL
TPE
7.5 x d



Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF35.UL.05.04	(4G0.5)C	8.0	42	86
CF35.UL.07.04	(4G0.75)C	8.5	58	107
CF35.UL.15.04	(4G1.5)C	10.0	89	153
CF35.UL.25.04	(4G2.5)C	11.5	133	214
CF35.UL.40.04	(4G4.0)C	13.5	209	327
CF35.UL.60.04	(4G6.0)C	16.0	305	461
CF35.UL.100.04	(4G10)C	19.5	468	689
CF35.UL.160.04	(4G16)C	23.0	740	1025
CF35.UL.250.04	(4G25)C	28.0	1181	1544
CF35.UL.60.03.O.PE	(3x6.0)C	15.5	239	370
CF35.UL.250.03.O.PE [11)]	(3x25)C	25.0	902	1228
CF35.UL.350.03.O.PE [11)]	(3x35)C	28.5	1222	1701
CF35.UL.500.03.O.PE [11)]	(3x50)C	33.5	1714	2234

[11)] Phase-out model

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

Order example: CF35.UL.05.04 – to your desired length (0.5 m steps)
CF35.UL chainflex® series .05 Code nominal cross section .04 Number of cores

Online order ▶ www.chainflex.eu/CF35.UL

Delivery time 24hrs or today.
Delivery time means time until goods are shipped.

CFRIP

Guarantee igus chainflex 36 month guarantee