

1026547	DATA SHEET	
Valid from: 12.07.2018	ÖLFLEX® CHAIN 90 CP	

Application

ÖLFLEX® CHAIN 90 CP are shielded highly-flexible PUR single core cables approved for the European, North American and Canadian market, for permanent flexible use in power chains and fixed installation with narrow bending radii under increased mechanical load conditions. They are also suitable for use in dry, damp or wet areas. These products are suitable for outdoor use if the indicated temperature range is observed. ÖLFLEX® CHAIN 90 CP are increased resistant to oils and at room temperature largely resistant to acids and alkalis. The outer sheath withstands high mechanical stresses, in particular abrasion and dragging. It is also cut proof and resists microbes and hydrolysis.

ÖLFLEX® CHAIN 90 CP are especially suitable for increased requirements (Extended Line) in power chains and in permanently moved machine parts. They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted. The screening braid protects against interference from electrical fields.

Application range:

Power chains or moving machine parts, for wiring of electric and electronic equipment in switch cabinets, test systems in the automotive industry, vehicles and stationary fuel cell systems

USE according to RU: PUR sheathed cables for external wiring
 USE according to cRU: Cables for internal or external interconnection with or without mechanical use.

Design

Design	acc. to UL AWM Style 11624, CSA C22.2 No. 210-15 and based on EN 50525-1 resp. VDE 0285-525-1
Approvals	RU AWM 758, Style 11624 (File No. E63634) cRU AWM I A/B, II A/B (File No. E63634)
Conductor	extra fine wire strands of bare copper acc. to IEC 60228 resp. VDE 0295, Class 6
Core insulation	Special compound based on TPE
Core identification	Black or GN/YE
Screen	braid of tinned copper wires, coverage = 85 % (nominal value)
Outer sheath	TMPU Polyurethane compound (UL/CSA 80° C rating) colour: Black, similar RAL 9005

Electrical properties

Nominal voltage	IEC U ₀ / U: 600/1000 V RU/ cRU: 1000 V
Test voltage	2500 V AC

Mechanical and thermal properties

Min. bending radius	flexing: up from 7.5 x cable diameter fixed installation: 3 x cable diameter
Bending cycles and power chain operation parameters	See Selection Table A2-1 in the appendix of our online catalogue For use in power chains: Please comply with assembly guideline Appendix T3
Torsion movement in WTG	TW-0 (5000 cycles at ≥ +5°C) TW-2 (2000 cycles at ≥ -40°C) ± 150 °/m at 1 revolution per minute

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Temperature range	flexing (VDE): -35 °C up to +80 °C max. conductor temp. flexing (RU/cRU): up to +80 °C max. conductor temp. fixed installation (VDE): -50 °C up to +80 °C max. conductor temp. fixed installation(RU/cRU): up to +80 °C max. conductor temp.
Flammability	flame retardant acc. to: IEC 60332-1-2 resp. VDE 0482-332-1-2 IEC 60332-3-24 resp. VDE 0482-332-3-24 IEC 60332-3-25 resp. VDE 0482-332-3-25 RU: Vertical flame test VW-1 cRU: FT1
Halogen-free	acc. to VDE 0472-815
UV-resistance	acc. to EN 50618 (VDE 0283-618) EN 50620 (VDE 0285-620) EN ISO 4892-2-2013, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396 resp. VDE 0473-396, method B
Oil resistance	acc. to EN 50363-10-2 resp. VDE 0207-363-10-2
Tests	acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396 UL 1581 und CSA C22.2
EU Directives	These cables are conform to the EU-Directives 2014/35/EU (Low Voltage Directive)

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