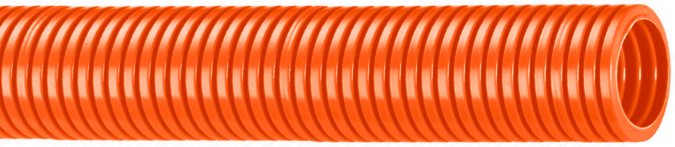
TECHNICAL DATA SHEET

Type CPC EVO™ (Electric Vehicle Orange) Conduit

Flame retardant conduit for Electric Vehicle harnesses

Harnessflex
SPECIALIST CONDUIT SYSTEMS



Low smoke, low toxicity, Co-Polyester conduit.

Ideal for Electric Vehicle harness applications such as drivetrain, body section and chassis.

Certifications / Standards:
(Refer to tables for certifications details)

Features & benefits:
- High level of flame retardancy
- High flexibility and fatigue life
- Very high abrasion, impact and shock resistance
- Excellent high and low temperature properties
- Resistant to hydrocarbons, greases, fuels and oils
- Self-extinguishing, low smoke and toxicity
- Halogen free
- High UV resistance
- Available in Orange (RAL 2017)

Applications:
- Ideal for drivetrain, body section and chassis
- High / low temperatures
- Areas with risk of abrasion, impact or shock

Temperature range:
- Static applications: -50°C to +135°C
- Moving applications: -25°C to +150°C
- Short term: +175°C

UV Resistance:
- High
- Retains a minumum of 65% of mechanical properties when UV aged in accordance with BS EN ISO 4892-2:2013

Material / Materials / Finishes:
- Co-polyester
- Increased flame retardancy

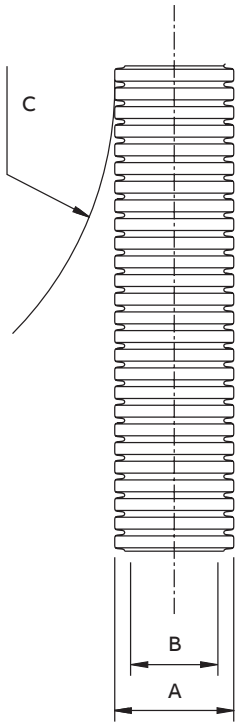
Ingress protection:
- For use with all hinged and sealed fittings in the Harnessflex range
- IP40 - Hinged fittings
- IP68 (2 bar 30 mins) - Sealed fittings
- IP69 - Sealed fittings

Conforms to:
- CE marked to Low Voltage Directive 2014/35/EU
- RoHS Compliant to 2011/65/EU
- Conforms with end of life vehicle directive (ELV) EU200/53/EC

Fire performance:

Test standard	Performance rating
IEC 61386-1	Pass
UL94	V2

Chemical resistance:
- High chemical resistance levels
- View our chemical resistance guide here.



Type CPC Conduit – Part numbers and dimensions

	Conduit size		Dimensions (mm)			
Part No.	(NC)	(NW)	Outside Dia. (A)	Inside Dia. (B)	Bend radi (C)	Reel Length (m)
CPC08/OR	8	7.5	9.95	6.00	20.0	50
CPC12/OR	12	10	13.05	9.50	25.0	50
CPC16/OR	16	13	15.85	11.00	30.0	50
CPC20/OR	20	17	21.00	16.05	40.0	50
CPC25/OR	25	22	25.60	21.10	45.0	50
CPC28/OR	28	23	28.25	21.20	45.0	50
CPC32/OR	32	29	34.40	27.20	55.0	50
CPC40/OR	40	36	42.20	34.30	60.0	25
CPC50/OR	50	48	54.10	46.00	70.0	25

Mechanical properties

Test type	Standard	Requirement	Status
Crush strength	IEC61386-1	<25% crush >90% recovery	>125N
Tensile strength	IEC61386-1	Fitting pull off (Hinged Fitting)	100N
Impact strength @ 23°C	IEC61386-1	No cracks <20% deformation min value	>20J
Impact strength @ -25°C	IEC61386-1	No cracks <20% deformation min value	>6J
Dynamic bend radius @ -25 °C	IEC61386-23	5,000 cycles minimum	4xOD
Cold bend @ -40°C	NFR13-903	2xOD	Pass

Thermal properties

Test type	Standard	Requirement	Value
Minimum temperature	–	Permanent use static	-50°C
Minimum temperature	IEC 61386-23	Dynamic Use	-45°C
Maximum temperature	–	Permanent use	135°C
Max short term temperature	–	Permanent use	150°C
Max short term temperature	IEC 61386-23	Dynamic use (5000 cycles)	150°C

Flammability

Test type	Standard	Requirement	Result	Value
Oxygen index	ISO 4589-2	% Oxygen to support combustion	30.5	%
Flammability	UL94	Vertical (V0,V2) or Horizontal (HB)	V2	–
Flammability	IEC 61386-1	1Kw Burner @ 45° vertical burn	Pass	Pass/Fail
Flammability	FMVSS3042	≤100mm/min	0	mm/min

Toxicity

Test type	Standard	Requirement	Result	Value
Halogen free	–	<0.5%	Pass	Pass/Fail
Phosphorous free	–	<0.5%	Pass	Pass/Fail
Sulphur free	–	<0.5%	Pass	Pass/Fail

Pre-test conditions

Duration	Standard	Temperature	Relative humidity
168 (hrs)	BS EN IEC 61386-1	23°C	50%

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