

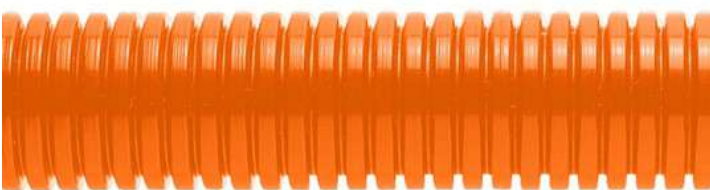
TECHNICAL DATASHEET

# 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:**



**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 2003)

**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
- Dynamic applications: -25 °C to +150 °C
- Short term: +175 °C

**UV Resistance:**

- Orange - High

**Material:**

- 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:**

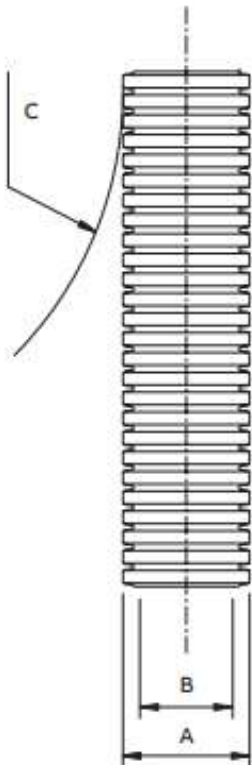
- CE Mark to the Low Voltage Directive
- RoHS compliant to 2015/863
- End of Life Vehicle Directive (ELV) EU200/53/EC

**Fire performance:**

- 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

Part No.	Conduit size		Dimensions (mm)			
	NC	NW	Outside Dia. (A)	Inside Dia. (B)	Bend radii (C)	Reel Length
CPC16 /OR	16	13	16.0	11.0	30.0	50m
CPC20 /OR	20	17	21.2	16.1	40.0	50m
CPC28 /OR	28	23	28.5	22.5	45.0	50m

Part number example: To order quote part number & reel length, e.g. CPC16/OR/50M.

### Mechanical properties

Test type	Standard	Requirement	Result
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	5000 cycles minimum	4 x OD
Cold bend @ -40 °C	NFR13-903	2 x OD	Pass

### Thermal properties

Test type	Standard	Requirement	Result
Minimum Temperature		Permanent Use - Static	-50 °C
Minimum Temperature	IEC 61386-23	Dynamic Use	-45 °C
Maximum Temperature		Permanent Use	135 °C
Short Term Temperature		Temporary Use	150 °C
Short Term Temperature	IEC 61386-23	Dynamic Use (5000 Cycles)	150 °C

### Flammability

Test type	Standard	Requirement	Result
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 @ Vertical burn	Pass
Flammability	FMVSS3042	<100mm/min	Pass (0mm/min)

### Toxicity

Test type	Standard	Requirement	Result
Halogen free	-	<0.5%	Pass
Phosphorus free	-	<0.5%	Pass
Sulphur free	-	<0.5%	Pass

### Pre-test conditions

Duration	Standard	Temperature	Relative humidity
168 hours	BS EN IEC61386	23 °C	50%

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