



TECHNICAL DATA SHEET

Carroll Australasia is the authorised distributor for the Harnessflex products in Australia and New Zealand (ANZ). We are a specialist stockist of the Harnessflex specialised range of flexible conduit systems, fittings, backshells and more.

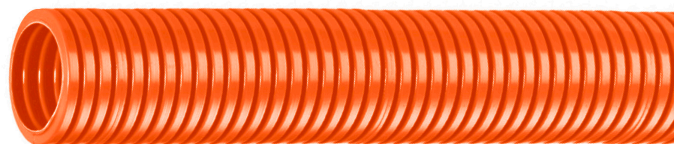
HARNESSFLEX CPC EVO™ CONDUIT

FLAME RETARDANT CONDUIT FOR ELECTRIC VEHICLE HARNESSES

Harnessflex

Low smoke, low toxicity, Co-Polyester conduit.

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



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:

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

Material/Materials/Finishes:

- 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

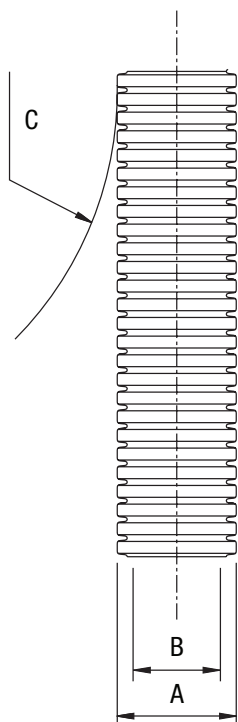
Chemical resistance:

- High chemical resistance levels

Carroll Australasia Pty Ltd reserves the right to change specifications without notice.



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CPC CONDUIT – PART NUMBERS AND DIMENSIONS

PART NO.	CONDUIT SIZE		DIMENSIONS (MM)			
	(NC)	(NW)	OUTSIDE DIA. (A)	INSIDE DIA. (B)	BEND RADI (C)	REEL LENGTH
CPC20/OR/50M	20	17	21.00	16.05	40.0	50m
CPC28/OR/50M	28	23	28.25	21.20	45.0	50m

*Other sizes available on request

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	STATUS
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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