Conduit Systems - Polyamide

NC Standard Weight Slit - General Purpose

Harnessflex
SPECIALIST CONDUIT SYSTEMS

Technical Characteristics

Conforms to	ADR Approved CE Mark to the low voltage directive RoHS Compliant to 2011/65/EU Conforms with end of life vehicle directive (ELV)EU200/53/EC
Approvals and Standards	TÜV SÜD, CE, RoHS
Degree of mechanical protection	High flexibility & fatigue life - Very High abrasion, impact and shock resistance
Degree of protection	IP40 - Hinged fittings
UV protection	Very High (Black) Medium (Grey, Orange & Red)
Finish	Black (BL), Grey (RAL7031), Red (RAL3031) & Orange (RAL2003) (Other colours available on request)
Application	General-purpose and retro fit automotive harness applications

Normal operating temperature range

Application	Min Temp	Max Temp
Static	**- 40°C**	**+120°C**
Dynamic	**- 5°C**	**+120 °C**

For use with - Fitting range: For use with all hinged fittings in the Harnessflex range

Fire performance

Test Standard	Performance Rating	
IEC 61386-1	Pass	
UL94	HB	Self Extinguishing Low smoke toxicity & Halogen Free
FMVSS302	0 mm/min	

Testing data: Click or See pages 3 & 4

Type of material: Polyamide (Nylon) PA 6 - heat and UV stabilised

Image

Cable Management Products Ltd.
CMG House - Station Road - Coleshill - B46 1HT - United Kingdom
Tel: +44(0)1675 468 222 - Fax: +44(0)1675 464 930
Technical Support e-mail: cmg.conduitsystems@tnb.com - www.harnessflex.com

Thomas&Betts
A Member of the ABB Group

Conduit Systems - Polyamide

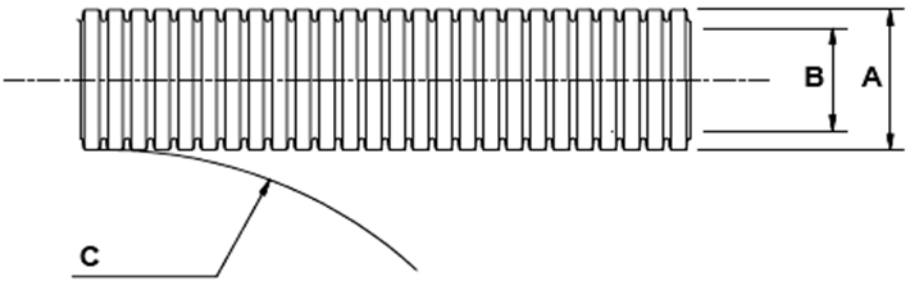
NC Standard Weight Slit - General Purpose

Harnessflex
SPECIALIST CONDUIT SYSTEMS

Technical & Dimensional Data

Part No.	Conduit Size		Dimensions				Average Weight
	(NC)	(NW)	(A) Outside Diameter (Mid size)	(B) Minimum Bore	(C) Minimum Static Bend Radius	Reel Length (m)	(Kg/100m)
NC06-S	6	4.5	7.2mm	4.4mm	10mm	100	0.9
NC08-S	8	7.5	10.0mm	6.2mm	20mm	100	1.9
NC10-S	10	8.5	11.6mm	8.0mm	23mm	100	2.1
NC12-S	12	10	13.1mm	9.6mm	26mm	100	2.4
NC16-S	16	13	15.9mm	11.7mm	32mm	100	4.1
NC18-S	18	14	18.5mm	14.0mm	37mm	50	4.6
NC20-S	20	17	21.2mm	16.3mm	42mm	50	5.6
NC25-S	25	22	25.6mm	21.3mm	52mm	50	7.4
NC28-S	28	23	28.4mm	22.5mm	57mm	50	9.0
NC32-S	32	29	34.5mm	28.6mm	79mm	50	12.2
NC40-S	40	36	42.4mm	34.8mm	85mm	25	14.0
NC50-S	50	48	54.3mm	46.2mm	90mm	25	20.0

To order quote part number & reel length for black e.g. NC20-S/50m or for all other colours add colour and reel length e.g. orange NC20-S/OR/50M red NC20-S/RD/50M or green NC20-S/GN/50M



Cable Management Products Ltd.
CMG House - Station Road - Coleshill - B46 1HT - United Kingdom
Tel: +44(0)1675 468 222 - Fax: +44(0)1675 464 930
Technical Support e-mail: cmg.conduitsystems@tnb.com - www.harnessflex.com

Thomas&Betts
A Member of the ABB Group

Conduit Systems - Polyamide

NC Standard Weight Slit - General Purpose

Harnessflex
SPECIALIST CONDUIT SYSTEMS

Mechanical Properties

Test Type	Methods / Standards	Requirements	Value
Crush Strength			
Tensile Strength	IEC61386-1	Fitting Pull off (Hinged Fitting)	>100N
Impact Strength @ 23 °C			
Impact Strength @-5 °C			
Dynamic Bend radius @-5 °C	IEC61386-23	5000 cycles minimum	4xOD
Cold Bend @ -40 °C	NFR13-903	2xOD	Pass

Thermal Properties

Test Type	Methods / Standards	Requirements	Value
Minimum Temperature		Static Permanent Use	-40°C
Minimum Temperature	IEC61386-23	Dynamic Use (5000 cycles)	-5°C
Maximum Temperature		Permanent Use (30,000) Hours	120°C
Short Term Temperature		Temporary Use (3,000) Hours	150°C
Short Term Temperature		Temporary Use (200) Hours	170°C

Chemical Resistance Chart

Key:

Suitable :

Limited Suitability :

Unsuitable :

Not Tested :

Astm No.1	Diesel oil	Methyl Bromide	Sulphur Dioxide (Gas)
Astm No.2	Diethylamine	MEK	Sulphuric Acid (10%)
Astm No.3	Ethanol	Nitric Acid (10%)	Sulphuric Acid (70%)
Acetic Acid (10%)	Ether	Nitric Acid (70%)	Toluene
Acetone	Ethylamine	Oxalic Acid	Transformer Oil
Aluminium Chloride	Ethylene Glycol	Ozone (Gas)	1,1,1-Trichloroethane
Aniline	Ethyl Ethanoate	Paraffin oil	Trichloroethylene
Benzaldehyde	Freon 32	Petrol	Turpentine
Benzene	Hydrochloric Acid (10%)	Phenol	Vegetable Oil
Carbon tetrachloride	Hydrochloric Acid (36%)	Sea Water	Vinyl Acetate
Chlorine water	Hydrogen Peroxide (35%)	Silver Nitrate	Water
Chloroform	Hydrogen Peroxide (87%)	Skydrol	White Spirit
Citric Acid	Lactic Acid	Sodium Chloride	Zinc Chloride
Copper Sulphate	Lubricating oil	Sodium Hydroxide (10%)	
Cresol	Methanol	Sodium Hydroxide (60%)	

The information above is given as a guide only and is based on published technical data and experience. The chemical resistance of the above products is dependant on factors such as chemical exposure, concentration of the chemical and temperature. The above chemicals are valid for a temperature of 23°C. Use of the above table is at the users own discretion and risk. Those using it must satisfy themselves that their application presents no health and safety risks. The end user should assess compatibility with their application and contact Thomas & Betts for further information.

ADHERENCE TO THE CURRENT WIRING REGULATIONS BS7671 OR NEC WIRING REGULATIONS (FOR USA) IS STRONGLY ADVISED.
MINIMUM BEND RADIUS FOR FLEXING IS DEPENDANT UPON MINIMUM TEMPERATURE, BENDING FREQUENCY AND CHEMICAL ENVIRONMENT.

Cable Management Products Ltd.
CMG House - Station Road - Coleshill - B46 1HT - United Kingdom
Tel: +44(0)1675 468 222 - Fax: +44(0)1675 464 930
Technical Support e-mail: cmg.conduitsystems@tnb.com - www.harnessflex.com

Thomas&Betts
A Member of the ABB Group

Conduit Systems - Polyamide

NC Standard Weight Slit - General Purpose

Harnessflex
SPECIALIST CONDUIT SYSTEMS

Flammability

Test Type	Method / Standard	Requirement	Result	Unit
Oxygen Index	ISO 4589-2	% Oxygen to support combustion	23	%
Flammability	UL94	Vertical (V0,V2) or Horizontal (HB)	HB	
Flammability	BS EN IEC 61386-1	1Kw Burner @ 45° Vertical burn	Pass	Pass/Fail
Flammability	FMVSS3042	≤100mm/min	0	mm/min

Toxicity

Test Type	Method / Standard	Requirement	Result	Unit
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 (Hours)	BS EN IEC 61386-1	23 (^{0}C)	50 (%)

Cable Management Products Ltd.
CMG House - Station Road - Coleshill - B46 1HT - United Kingdom
Tel: +44(0)1675 468 222 - Fax: +44(0)1675 464 930
Technical Support e-mail: cmg.conduitsystems@tnb.com - www.harnessflex.com

Thomas&Betts
A Member of the ABB Group