



Connect and Protect

TransTechnical Solutions

Technical Data Sheet

Non-Metallic Systems

NC Standard Weight - General Purpose

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



Degree of mechanical protection	High flexibility & fatigue life - Very High abrasion, impact and shock resistance
---------------------------------	---

Degree of protection	IP40 - Hinged fittings IP67 - Sealed fittings
----------------------	--

UV protection	Very High (Black), Medium (Red and Orange)
---------------	--

Finish	Black (BL) , Red & Orange [On Request]
--------	--

Application	General-purpose automotive harness applications
-------------	---

Normal operating temperature range	Application	Min Temp	Max Temp
	Static	- 40°C	+120°C
	Dynamic	- 5°C	+120°C

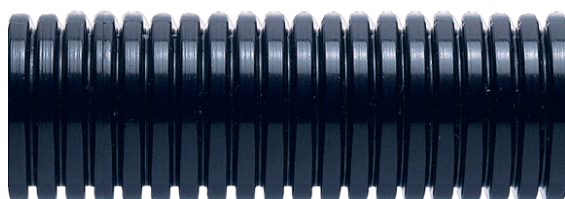
For use with - Fitting range	For use with all hinged and sealed fittings in the H-flex range
------------------------------	---

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

Testing data	See page 3 & 4
--------------	----------------

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

Image



011 974 9671

sales@ttsafrica.com

Unit F11, Roete 24, 50 Herman Street, Meadowdale, Germiston, South Africa



Connect and Protect

TransTechnical Solutions

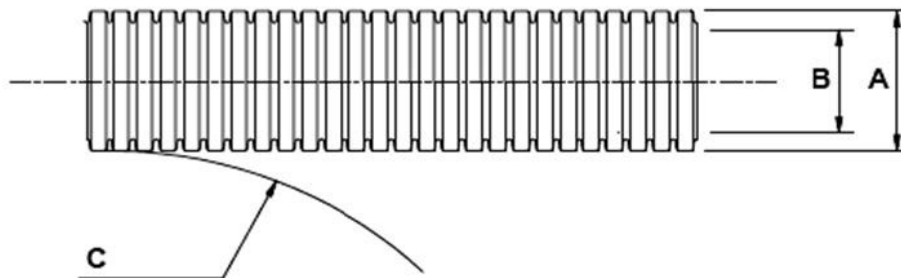
Technical Data Sheet

Non-Metallic Systems

NC Standard Weight - General Purpose

Technical and 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)	
TNC06	6	4.5	7.2mm	4.4mm	10mm	100	0.9
TNC08	8	7.5	10.0mm	6.2mm	20mm	100	1.9
TNC10	10	8.5	11.6mm	8.0mm	23mm	100	2.1
TNC12	12	10	13.1mm	9.6mm	26mm	100	2.4
TNC16	16	13	15.9mm	11.7mm	32mm	100	4.1
TNC18	18	14	18.5mm	14.0mm	37mm	50	4.6
TNC20	20	17	21.2mm	16.3mm	42mm	50	5.6
TNC25	25	22	25.6mm	21.3mm	52mm	50	7.4
TNC28	28	23	28.4mm	22.5mm	57mm	50	9
TNC32	32	29	34.5mm	28.6mm	79mm	50	12.2
TNC40	40	36	42.4mm	34.8mm	85mm	25	14
TNC50	50	48	54.3mm	46.2mm	90mm	25	20
To order quote part number & reel length for black e.g. TNC20/50m							



011 974 9671

sales@ttsafrica.com

Unit F11, Roete 24, 50 Herman Street, Meadowdale, Germiston, South Africa



Connect and Protect

TransTechnical Solutions

Technical Data Sheet

Non-Metallic Systems

NC Standard Weight - General Purpose

Mechanical Properties

Test Type	Methods / Standards	Requirements	Value
Crush Strength	IEC61386-1	<25% crush >90% recovery	>320N
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 @-5 °C	IEC61386-1	No Cracks. <20% deformation min value	>6J
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	IEC61386-23	Static Permanent Use	-40°C
Minimum Temperature		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%)	

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.

011 974 9671

sales@ttsafrica.com

Unit F11, Roete 24, 50 Herman Street, Meadowdale, Germiston, South Africa



Connect and Protect

TransTechnical Solutions

Technical Data Sheet

Non-Metallic Systems

NC Standard Weight - General Purpose

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 (°C)	50 (%)