



TransTechnical Solutions

Technical Data Sheet

TempGuard - Co-Polyester

HTC Medium Weight High Temperature Conduit

Technical Characteristics

Conforms to	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	Very High flexibility & fatigue life. High elevated temperature, abrasion, impact and shock resistance.				
Degree of protection	IP40 - TempGuard & standard hinged fittings IP67 - Sealed fittings				
UV protection	Very High				
Finish	Black (BL) only				
Application	HTC conduit is suited to static and dynamic applications where elevated temperatures are present. HTC is resistant to all under-bonnet greases, fuels and oils.				
Normal operating temperature range	Application	Minimum	Permanent	Long Term	Short Term
	Static	-50°C	+150°C	+175°C	+190°C
	Dynamic	-45°C	+150°C	+175°C	+190°C
For use with - Fitting range	For use with TempGuard high temperature fittings in the H-flex range. Also compatible with all standard H-flex hinged and sealed fittings.				
Fire performance	Test Standard	Performance Rating			
	Not Rated	Not Rated			
	Self Extinguishing & Halogen Free				
Testing data	See page 3				
Type of material	Modified Co-Polyester				

Image





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Technical and Dimensional Data

* Stocked Items	Conduit Size (NC)	(NW)	(A) Outside Diameter (Mid Size)	(B) Inside Diameter	(C) Minimum Static Bend Radius	Reel Length (m)	Average Weight (Kg/100m)
THTC08	08	7.5	9.8mm	6.2mm	20mm	50	2.6
THTC10	10	8.5	11.5mm	8.7mm	15mm	50	3.1
THTC12	12	10	13.0mm	9.4mm	25mm	50	3.9
THTC16	16	13	16.0mm	11.0mm	30mm	50	5.3
THTC20	20	17	21.2mm	16.1mm	40mm	50	8.4

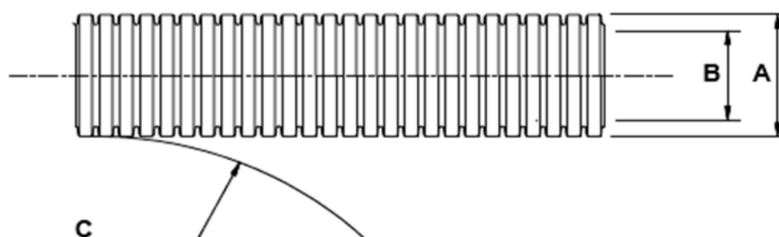
To order, quote part number and reel length, e.g. THTC20/25M

** Made to Order	Conduit Size (NC)	(NW)	(A) Outside Diameter (Mid Size)	(B) Inside Diameter	(C) Minimum Static Bend Radius	Reel Length (m)	Average Weight (Kg/100m)
THTC06	06	4.5	7.1mm	4.5mm	5mm	50	1.8
THTC25	25	22	25.3mm	21.0mm	45mm	50	13.5
THTC28	28	23	28.5mm	22.5mm	45mm	50	14.0
THTC32	32	29	34.5mm	27.2mm	55mm	50	17.3
THTC40	40	36	42.5mm	34.2mm	60mm	25	20.6
THTC50	50	48	54.1mm	46.0mm	70mm	25	33.0

To order, quote part number and reel length, e.g. THTC25/25M

* Part numbers listed are stocked items available for immediate order.

** Part numbers listed are available to order but are not stocked and may be subject to manufacturing lead time.





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Mechanical Properties

Test Type	Methods / Standards	Requirements	Value
Crush Strength	IEC61386-1	<25% crush >90% recovery	>125N
Tensile Strength	IEC61386-1	Fitting Pull off (Hinged Fitting)	>100N
Impact Strength @ -25°C	IEC61386-1	No cracks; <20% deformation min value	>6J
Impact Strength @ 23°C	IEC61386-23	-	>20J
Dynamic Bend radius @ -45°C	IEC61386-23	5000 cycles minimum	6xOD

Thermal Properties

Test Type	Methods / Standards	Requirements	Value
Minimum Temperature		Static Permanent Use	-50°C
Minimum Temperature	IEC61386-23	Dynamic Use (5000 cycles)	-45°C
Maximum Temperature		Permanent Use Hours	150°C
Long Term maximum temperature		Temporary Use (30,000) Hours	175°C
Short Term maximum temperature		Temporary Use (3,000) Hours	190°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. Chemical resistance depends on exposure, concentration and temperature. The chemicals shown are valid at 23°C. Use of the table is at the user's discretion and risk. Users must satisfy themselves that their application presents no health and safety risks and should contact TTS for further information.

ADHERENCE TO THE CURRENT WIRING REGULATIONS BS7671 OR NEC WIRING REGULATIONS (FOR USA) IS STRONGLY ADVISED.

MINIMUM BEND RADIUS FOR FLEXING DEPENDS ON MINIMUM TEMPERATURE, BENDING FREQUENCY AND CHEMICAL ENVIRONMENT.