

Type S

Superflexible metallic conduit



Superflexible galvanised steel conduit

Certifications / Standards:

(Refer to tables for certifications details)



Features & benefits:

- Higher compression, mechanical and tensile strength than nylon systems
- Highly flexible, tight bend radius
- Temperature range
- Inherent Low Fire Hazard (ILFH) system
- IP40 rated (with appropriate fitting)

Applications:

- Applications where high mechanical strength, bend radius or high temperatures are required.
- Lighting / Cable Track
- Under-floor wiring, access flooring or in high temperature installations

Temperature range:

- Static applications: -50°C to +300°C
- Moving applications: -45°C to +250°C

UV Resistance:

- Very high

Material / Materials / Finishes:

- Galvanised Steel

Ingress protection:

- IP40 (with appropriate fitting)

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
- BS Kitemark KM-35161

Fire performance:

Test standard	Performance rating
EN45545	ILFH
NFF16-101	ILFH
LUL-1085	ILFH
BS6855	ILFH
DIN 5510-2	ILFH

Degree of mechanical protection:

- High flexibility & fatigue life

Chemical resistance:

- High chemical resistance levels

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Type S Conduit – Part numbers and dimensions

Part No.	Conduit size		Dimensions (mm)			Reel Length (m)
	(NC)	Outside Dia. (A)	Inside Dia. (B)	Bend radi (C)		
S10/50M	10	9.2	7.1	25		50
S12/50M	12	13.0	10.3	30		50
S16/50M	16	16.5	13.0	35		50
S20/50M	20	20.5	16.9	45		50
S25/50M	25	25.0	21.4	55		50
S32/25M	32	32.0	28.1	60		25
S40/25M	40	42.5	37.7	80		25
S50/25M	50	53.0	48.4	90		25
S63/10M	63	62.5	57.5	115		10
S75/10M	75	77.0	70.0	150		10

Part number example: To order quote part number & reel length, e.g. S10/50m.

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Mechanical properties

Test type	Standard	Requirement	Status
Crush strength	IEC61386-1	<25% crush >90% recovery	>1500N
Crust strength	AFX norm C1989	10% Crush, instantaneous value	2200N
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
Tensile strength	IEC61386-1	Fitting pull off (Type S fitting)	>1000N
Tensile strength	AFX norm T1987	Ultimate pull out strength (Type S fitting)	1450N
Dynamic bend radius @ -15 °C	IEC61386-23	IEC61386-23	4xOD

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Thermal properties

Test type	Standard	Requirement	Value
Minimum temperature	–	Permanent use static	-50°C
Minimum temperature	IEC 61386-23	Dynamic Use (5000 cycles)	-45°C
Maximum temperature	–	Permanent use	300°C
Maximum temperature	IEC 61386-23	Dynamic Use (5000 cycles)	250°C

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Flammability

Test type	Standard	Requirement	Result	Value
Oxygen index	ISO 4589-2	% Oxygen to support combustion	ILFH	%
Glow wire	IEC 60695	No ignition to extinguish within 30s	ILFH	°C
Flammability	UL94	Vertical (V0, V2) or Horizontal (HB)	ILFH	
Flammability	IEC 61386-1	1KW burner at 45°	ILFH	Pass/Fail
FTI	ISO 4589-3		ILFH	

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Smoke

Test type	Standard	Requirement	Result	Value
Smoke Density	ATS 1000	In flaming mode <100 @ 4 mins	ILFH	
Smoke Density	ATS 1000	In non-flaming mode <100 @ 4 mins	ILFH	
Smoke Density	BS6853	A < 0.02	ILFH	
Smoke Density	ASTM E-662	Flaming mode Ds Max	ILFH	
Smoke Density	ISO 5659-2	Ds Max	ILFH	

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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

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Pre-test conditions

Duration	Standard	Temperature	Relative humidity
168 (hrs)	BS EN IEC 61386-1	23°C	50%

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