



Flexible Conduit Systems

## Type SP PVC Coated Flexible Conduit

### Description

SP is a flexible galvanised steel core conduit coated in a PVC cover for extra protection against the elements.

The PVC coating makes the actual conduit weatherproof and water resistant.

The system with fittings achieves an IP54 rating and a possible IP65 with use of a different fitting.

### Applications

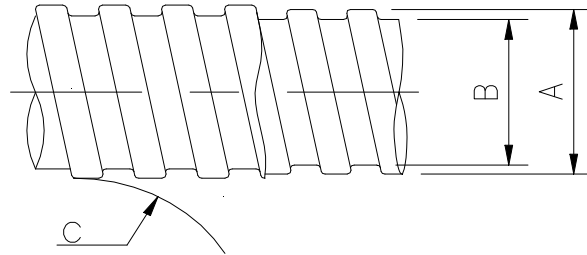
SP has a wide range of applications, it can be typically found in machine tools, air conditioning/heating, mechanical handling, refrigeration, CCTV, computer/underfloor wiring, motors and generators making this a versatile product.

The conduit comes in black as standard but can also be made to order in grey and orange. All colours are UV resistant. Black is recommended for outdoor use.

### Approvals

SP conduit approvals are detailed below...

IEC BS 61386  
CE LVD



Part Number	Conduit size (NW)	US Trade (Inch)	O/D		Bend radius
			A	B	
SP10		1/4	10.0	6.8	25
SP12		5/16	14.0	10.3	30
SP16		3/8	17.0	13.0	35
SP20		1/2	21.5	16.9	45
SP25		3/4	26.0	21.4	55
SP32		1	34.0	28.1	60
SP40		1 1/4	44.5	37.7	80
SP50		1 1/2	55.0	48.4	90
SP63		2	64.5	57.5	115
SP75			79.0	70.0	150

Note : dimensions are in mm

Fittings associated with SP conduit	
A type	Straight scroll fitting with external thread and ferrule
B type	Straight scroll swivel fitting with external thread and ferrule
M type	Straight swivel for installation IP65 fitting
F type	Straight scroll fitting with female internal thread and ferrule
C type	Smooth entry bush with ferrule
E type	Conduit terminator
90° and 45° elbows also available	



IEC 61386

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**Conduits**  
Document ref. SP Version 2



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## Performance characteristics

The tables below provide test data for SP Conduits in accordance with leading standards

Contact us for chemical compatibility data

### Specifications

Material: Galvanised Steel Core  
PVC Coating  
Colour: Black, grey, orange  
IP rating: IP54, IP65 with M Type fitting

Duration (Hours)	Standard	Temperature (°C)	Relative humidity (%)
168	EN50086/ IEC61386	23	50

## Performance Characteristics

Test type	Method/ Standard	Requirement	Value
<b>Mechanical performance</b>			
Crush strength @ 23°C	EN50086-1	<25% crush with >90% recovery	1250N
Crush strength @ 23°C	AFX norm C1989	10% Crush, Instantaneous Value	2200
Impact strength @ 23°C	EN50086-1	No cracks. < 20% deformation	20 J
Impact strength @ -25°C	EN50086-1	No cracks. < 20% deformation	6 J
Tensile strength@ 23°C	EN50086-1	With M Type Fitting	1000 N
Tensile strength@ 23°C	AFX norm T1987	Ultimate pull-out of M-Type Fitting	1450 N
Static bend radius @ 23°C	AFX norm S1985	-	45mm

### Thermal performance

Minimum temperature	EN50086-2-3	Dynamic 5000 cycles	-5°C
Maximum temperature	EN50086-2-3	Dynamic 5000 cycles	90°C
Dynamic Bend Radius @ -5°C	EN50086-2.3	5000 Cycles @ 50mm	Pass
Minimum Static	-	Permanent use	-15°C
Maximum Static	-	Permanent use	70°C
Maximum short term	-	3000 hours maximum	90°C

### Flammability, smoke and toxicity (FST) performance

Test type	Standard / method	Requirement	Result	Unit
Halogen Free	LUL	< 0.5 %	NO	Yes/No
Phosphorus Free	LUL	< 0.5 %	Yes	Yes/No
Sulphur Free	LUL	< 0.5 %	Yes	Yes/No
Oxygen Index	ISO 4589	% Oxygen to support combustion	28	%
Glow wire rating	IEC 695	No ignition, Extinguish within 2 s	850	°C
Flammability	UL94	Vertical (V0,V2) or Horizontal (HB)	V0	
Flammability	EN50086-1	1kW burner @ 45°	Pass	Pass/Fail
I Classification	NFF16-101	Oxygen Index & Glow wire	-	
F Classification	NFF16-101/102	Smoke density & Toxicity	-	
Smoke Density	ATS1000	in Flaming mode < 100 @ 4 mins	-	Pass/Fail
	ATS1000	in Non-Flaming mode < 100 @ 4 mins	-	Pass/Fail
Toxicity	NES713 Issue 3	Smoke Toxicity ≤ 5.0 or ≤ 10.0	-	Pass/Fail

**Notes:** values are based on nominal 20mm conduit size  
MBR = minimum bend radius  
OD = outside diameter  
Tests carried out using 20mm M-Type Fitting

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### Conduits

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