



NF
NORME FRANÇAISE

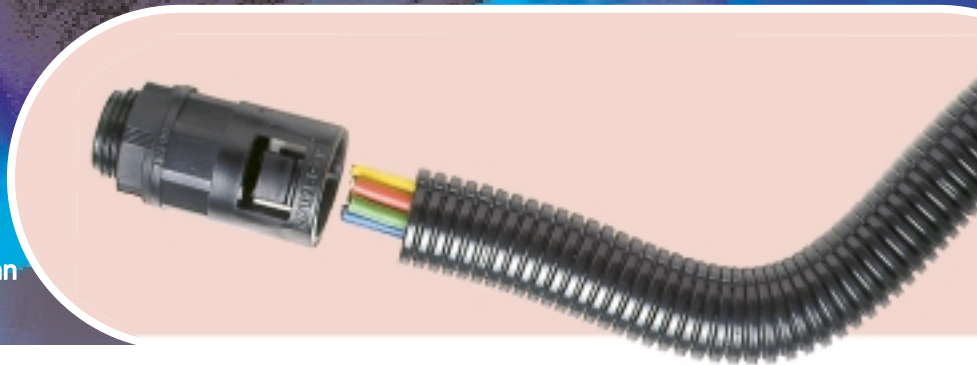


BS EN 50086

LOW VOLTAGE
DIRECTIVE

LISTED

Deutsche Bahn



Approvals may be limited to certain products, see approvals on page 44.

TYPE PI

STANDARD WEIGHT
Black (BL) and Grey (GR).



TYPE PI

HEAVY WEIGHT
Black only.



NEW

TYPE PP

MEDIUM WEIGHT
Black only.



NOMINAL CONDUIT SIZE	OUTSIDE DIAMETER mm	PITCH	PART NUMBER	INSIDE DIAMETER mm	MINIMUM BEND RADIUS mm	REEL LENGTH m	PART NUMBER	INSIDE DIAMETER mm	MINIMUM BEND RADIUS mm	REEL LENGTH m	PART NUMBER	INSIDE DIAMETER mm	MINIMUM BEND RADIUS mm	REEL LENGTH m
10	10.0	FINE	PIFS10	6.2	15	50	—	—	—	—	—	—	—	—
13	13.0	FINE	PIFS13	9.9	25	50	PIFH13	9.7	30	50	PPFM13	9.8	5	50
16	15.8	FINE	PIFS16	11.7	30	50	PIFH16	11.5	35	50	PPFM16	12.1	35	50
17	17.8	COARSE	PICS17	13.5	30	50	PICH17	13.2	35	50	—	—	—	—
21	21.2	FINE	PIFS21	16.6	35	50	—	—	—	—	PPFM21	16.8	40	50
21	21.2	COARSE	—	—	—	—	PICH21	16.4	40	50	—	—	—	—
22	21.8	COARSE	PICS22	16.4	35	50	PICH22	16.3	40	50	—	—	—	—
28	28.5	FINE	—	—	—	—	—	—	—	—	PPFM28	23.1	60	50
28	28.5	COARSE	PICS28	21.7	45	50	PICH28	21.5	50	50	—	—	—	—
34	34.5	FINE	—	—	—	—	—	—	—	—	PPFM34	29.1	50	50
34	34.5	COARSE	PICS34	27.7	55	25	PICH34	27.5	60	25	—	—	—	—
42	42.5	COARSE	PICS42	35.5	60	25	PICH42	35.3	65	25	—	—	—	—
54	54.5	COARSE	PICS54	46.6	70	25	PICH54	46.4	75	25	—	—	—	—

- See pages 38 - 45 for Technical Details
- See pages 34 - 35 for Cutting Tools and Instructions
- See page 23 for Accessories
- Minimum bend radius is minimum inside bend radius in static mode



Corrugated profile with fine pitch for increased cable carrying capacity or coarse pitch for increased flexibility

TYPE PA Polyamide (Nylon) 6 in black or grey

TYPE PR Modified Polyamide (Nylon) 6 in black or grey

TYPE PI Modified Polyamide 11 in black or grey
(Heavyweight in black only)

TYPE PP Polypropylene in black



Light, standard &
heavy weights available

www.adaptaflex.com

non-metallic accessories

LOCKNUTS, CONDUIT CLIPS, PLASTIC THREAD CONVERTERS, END CAPS, SEALING WASHERS, END SLEEVES



Approvals may be limited to certain products, see approvals on page 44.

Nylon Locknuts



TO FIT THREAD

PA (NYLON) BLACK

PA (NYLON) GREY

Sealing Washers

TYPE SWM



TO FIT THREAD

RUBBER FACE SEALING

Conduit Clips

TYPE AC

PA (Nylon) 66
construction with integral lid



NOMINAL CONDUIT SIZE mm

PART NUMBER BLACK

PART NUMBER GREY

End Caps

TYPE EC

Provide a smooth finish to prevent any damage to cables where the application is not terminated with a fitting.



NOMINAL CONDUIT SIZE mm

PART NUMBER

M12	-	-	M12	-	10	ACB10	ACG10	-	-
M16	LNPB/M16	LNPG/M16	M16	SWM16	13	ACB13	ACG13	13	ECB13
M20	LNPB/M20	LNPG/M20	M20	SWM20	16	ACB16	ACG16	16	ECB16
M25	LNPB/M25	LNPG/M25	M25	SWM25	17	ACB17	ACG17	17	-
M32	LNPB/M32	LNPG/M32	M32	SWM32	21	ACB21	ACG21	21	ECB21
M40	LNPB/M40	LNPG/M40	M40	SWM40	22	ACB22	ACG22	28	ECB28
M50	LNPB/M50	LNPG/M50	M50	SWM50	28	ACB28	ACG28	34	ECB34
M63	LNPB/M63	LNPG/M63	M63	-	34	ACB34	ACG34	42	ECB42
-	-	-	M75	-	42	ACB42	ACG42	54	ECB54
PG7	LNPB/PG7	LNPG/PG7	PG7	SWPG7	54	ACB54	ACG54	-	-
PG9	LNPB/PG9	LNPG/PG9	PG9	SWPG9	-	-	-	-	-
PG11	LNPB/PG11	LNPG/PG11	PG11	SWPG11	-	-	-	-	-
PG13	LNPB/PG13	LNPG/PG13	PG13.5	SWPG13	-	-	-	-	-
PG16	LNPB/PG16	LNPG/PG16	PG16	SWPG16	-	-	-	-	-
PG21	LNPB/PG21	LNPG/PG21	PG21	SWPG21	-	-	-	-	-
PG29	LNPB/PG29	LNPG/PG29	PG29	SWPG29	-	-	-	-	-
PG36	LNPB/PG36	LNPG/PG36	PG36	SWPG36	-	-	-	-	-
PG42	LNPB/PG42	LNPG/PG42	PG42	SWPG42	-	-	-	-	-
PG48	LNPB/PG48	LNPG/PG48	PG48	SWPG48	-	-	-	-	-

Nylon Thread Convertors



EXTERNAL THREAD

M16

M20

M25

End Sleeves

For sealing cables to non-metallic conduit



NOMINAL CONDUIT SIZE mm

PART NUMBER

OLD PART NUMBER (SHOWN IN PRICE LIST)

M20	P/M20-M16/R	-	-	13	ESN12	GZ9
M25	-	P/M25-M20/R	-	16	ESN16	GZ11
PG9	P/PG9-M16/TC	-	-	21	ESN20	GZ13
PG11	P/PG11-M16/TC	-	-	28	ESN28	GZ21
PG13	P/PG13-M16/TC	-	-	34	ESN32	GZ29
PG16	P/PG16-M16/TC	P/PG16-M20/TC	-	42	ESN40	GZ36
PG21	-	-	P/PG21-M25/TC	-	-	-

conduit cutting tools

**KWIKCUT
CUT-VICE
SWINGCUT
ROTOCUT**

KWIKCUT

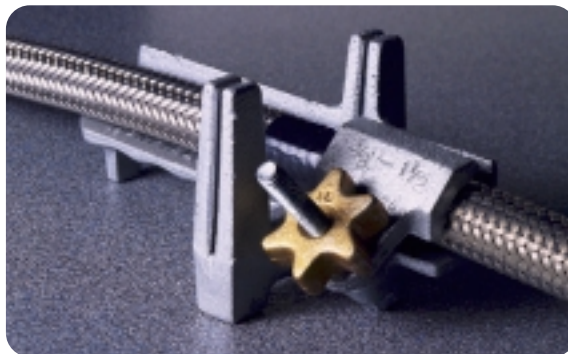


Kwikcut is the ideal cutting tool for non-metallic conduits (PA, PR, PI, PP, KFL, KFS, KFM & XF) up to 32mm.

CUTTING INSTRUCTIONS

Place the conduit between the cutting blade and lower support, squeeze the handles and rotate the conduit for a clean, easy cut. Spare blades are available.

CUT-VICE



Cut-vice offers the ability to produce a clean cut for conduit sizes 16mm to 40mm.

CUTTING INSTRUCTIONS

Place the conduit along the vice body and tighten the clamp. Holding the conduit and integral handle together, insert a hacksaw blade into the guide and cut. For braided conduit, wrap adhesive tape around the cutting point to secure braid. Remove tape after cutting.

ROTOCUT



Rotocut offers a simple but effective method for cutting 20mm and 25mm S, SS, SP, LFH-SP and SN conduit types.

CUTTING INSTRUCTIONS

Adjust the clamping pin so that the conduit is just held in the recess. Squeeze the lever and body whilst rotating the cutting blade. When the blade appears on the inside of the conduit, release the pressure and remove the conduit. A simple twist will then separate the two parts. Where the conduit is covered, the covering can be cut prior to separation. Spare blades are available.

SWINGCUT



Swingcut is a versatile vice and saw combination tool which facilitates a neat, square cut for liquid tight and pliable conduits between 10mm and 32mm. Six to one leverage advantage provides a strong cutting action.

CUTTING INSTRUCTIONS

Place the conduit in the vice and secure. Move the operating handle backwards and forwards whilst applying increasing pressure to the supporting handle. Hardened captive spring loaded retaining pins make blade replacement easy. Spare blades are available.

NEW

conduit cutting and assembly guide

Optimum performance of flexible conduit systems is only achieved when correctly assembled and installed.

Assembly of all Adaptaflex's conduit and fittings is now covered in a new cutting instructions booklet, which covers the correct cutting of conduit and how to assemble and attach the fittings.

By following the easy steps you are assured of correct installation and peak operating performance.

The booklet also provides useful tips, gained from actual installation experiences, which just might save you time in the future, when next installing Adaptaflex flexible conduit systems.

Ask for your copy today.

cutting & assembly guide

Adaptaflex
Flexible Conduit Systems

NON-METALLIC SYSTEMS

METALLIC SYSTEMS

Contents

The various Adaptaflex conduit system types, either non-metallic or metallic, are referenced here exactly as they are in our main product catalogue.

Full technical details of each conduit system are given in the catalogue.

Each page in this guide is numbered and colour coded in accordance

1

ADAPTALOK
TYPE PA, PR, PI & PP

2

ADAPTASEAL
TYPE PA, PR, PI & PP
ADAPTARING
TYPE PA, PR, PI & PP

3

LARGE DIAMETER SYSTEMS
TYPE PA, P1

4

HI-SPEC NON-METALLIC FLEXIBLE SYSTEMS
TYPE PK, PKTC, PKSS, PRTC & PRSS

5

KORIFIT
NON-METALLIC FLEXIBLE SYSTEMS

6

ADAPTASTEEL
STEEL FLEXIBLE SYSTEMS
TYPE S & SS

7

ADAPTASTEEL
COVERED STEEL FLEXIBLE SYSTEMS
TYPE SP, SN & LFH-SP

8

ADAPTASTEEL
LIQUID TIGHT COVERED STEEL FLEXIBLE SYSTEMS
TYPE SPL, SPLHC & SPUL

9

ADAPTASTEEL
OVERBRAIDED STEEL FLEXIBLE SYSTEMS
TYPE OB, OBHC & OBUL

HOW TO USE THIS GUIDE

Select the page
Using the colour referenced index opposite choose the page for the appropriate section in this guide. On each page in this guide you will find an illustration of the conduit type and a typical fitting.

Tools required
Tools required to cut the conduit and assemble the fitting will be illustrated. The full range of tools is illustrated below. Full sets of tools are applicable to all conduit.

Cutting the conduit
Illustrations show you how to cut the conduit cleanly and accurately.

Fitting Assembly
How to assemble and securely fix the fitting to the conduit.

The hints and tips section on each page will give you a few tricks of the trade to help you with your installation.

TOOLS REQUIRED

Standard Hand Tools



Groove joint filler or adjustable shearing

Specialist Tools

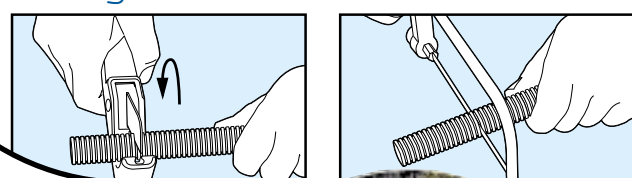


NON-METALLIC SYSTEMS

Tools required

- Kwikcut cutting tool, fine-tooth hacksaw, or utility knife.
- Adaptaflex removal tool to assist fitting removal.

Cutting the conduit



Also available on Adaptaflex's CD rom is video footage covering usage of the cutting tools described above.

Both the new instruction booklet and CD ROM are available by calling the Adaptaflex infoline.

The following pages enable you to select Adaptaflex products which best fit the purpose intended and are designed to help meet your product liability obligations over the lifetime of the installation.

To select the most appropriate Adaptaflex system for any given application match the performance criteria required to the relevant tables on the following pages.

Performance criteria used in this table are:

Bending to EN50086

Flexible and pliable conduits can be bent by hand. Flexible systems may flex frequently throughout their life and are suitable for both static and dynamic applications. Pliable systems are intended only for static applications.

Flexibility

Dependent on ease of bending and minimum bend radius without failure.

Fatigue Life

The recommended maximum number of flexing cycles to avoid failure, dependent on temperature, bend radius and frequency of movement.

Torsional Capability

Degree of resistance to conduit damage caused by twisting.

Minimum Dynamic Bend Radius @ Minimum Temperature

The recommended minimum inside bend radius at the minimum temperature to EN50086. Fatigue life in dynamic flexing applications is dependent upon bend radius, frequency of bending, temperature and the chemical environment.

Minimum Temperature to EN50086

The minimum operating temperature defined by the bending classification.

Minimum Static Temperature

The recommended minimum operating temperature in static mode.

Maximum Temperature to EN50086

The maximum operating temperature defined by the bending classification.

Maximum Long Term Temperature

The recommended maximum operating temperature in static mode.

Ultimate Compression Strength

Final resistance to deformation under compressive load.

Ultimate Tensile Strength

A combination of final conduit tensile and fitting pull-off resistance.

Abrasion Resistance

An indication of resistance to rubbing against other materials.

UV Resistance

An indication of suitability for external application dependent on resistance to degradation caused by exposure to UV ie. sunlight.

Non-Flame Propagating to EN50086

Self-extinguishing within a given time once a fire source is removed.

Halogen Free

Giving off < 0.1% Halogen acid gas when burnt.

Fire Performance (see key on page 39)

Systems combining various levels of high flame retardancy, low smoke density and toxicity in the event of fire are classified as Low Fire Hazard (LFH), Enhanced Low Fire Hazard (ELFH), Inherent Low Fire Hazard (ILFH) or Super Low Fire Hazard (SLFH).

EMI Screen @ 1MHz

(see **SCREEN** systems on page 45)

SCREEN systems are classified as EMI Screen, Enhanced EMI Screen or High EMI Screen dependent on capability to reduce electromagnetic interference (EMI) in the frequency range 0.1MHz to 1000 MHz.

System IP Rating to EN50086

(see definitions on page 43)

The resistance of an assembled system to the ingress of solids and liquids, dependent on the combination of conduit and fittings.

The point of entry into adjoining equipment may require independent sealing to maintain the system IP rating, see sealing washers on page 23.

CONDUITS

NON-METALLIC SYSTEMS

	PAGE NUMBER	CONDUIT TYPE	NOMINAL SIZE RANGE mm		COLOUR/FINISH (SEE KEY BELOW)
			MIN	MAX	
ADAPTALOK ADAPTASEAL ADAPTARING FLEXIBLE SYSTEMS	CONDUIT 4-5	PA LIGHT	13	54	B/G
		PA STANDARD	10	106	B/G
		PA HEAVY	13	54	B/G
	FITTINGS 6-17	PR	13	54	B/G
		PI	10	106	B/G
		PIH	13	54	B
		PP	13	34	B
HI-SPEC FLEXIBLE SYSTEMS	18-19	PK	13	34	B
		PKTC	13	34	S
		PKSS	13	34	S
		PRTC	16	54	S
		PRSS	16	54	S
KORIFIT PVC PLIABLE SYSTEM & XTRAFLEX FLEXIBLE SYSTEM	20-21	KFL	16	50	G
		KFS	16	25	W
		KFM	12	50	B
	22	XF	12	50	B

METALLIC SYSTEMS

ADAPTASTEEL STEEL FLEXIBLE SYSTEMS	24-25	S	10	75	S
		SS	12	32	S
ADAPTASTEEL COVERED STEEL FLEXIBLE SYSTEMS	26-27	SP	10	75	B/G/O
		SN	12	32	B
		LFH-SP	16	50	B
ADAPTASTEEL LIQUID TIGHT COVERED STEEL FLEXIBLE SYSTEMS	28-29	SPL	10	63	B/G/O
		SPLHC	16	63	B
		SPUL	16	63	G
ADAPTASTEEL OVERBRAIDED FLEXIBLE SYSTEMS	30	SB	10	50	S
		STC	10	50	S
	31	SPB	10	50	S
		SPTC	10	50	S
	32	SPLHCB	16	50	S
STAYFLEX PLIABLE SYSTEM	33	LSP	16	32	B

COLOUR KEY

B = BLACK
G = GREY
N = NICKEL PLATE
O = ORANGE
S = SELF
W = WHITE

BENDING TO EN50086	FLEXIBILITY	FATIGUE LIFE	TORSIONAL CAPABILITY	MIN DYNAMIC BEND RADIUS mm @ MIN TEMP	TEMPERATURE RANGE (°C)			ULTIMATE COMPRESSION STRENGTH (N/50mm)	ULTIMATE TENSILE STRENGTH (N)	ABRASION RESISTANCE	UV RESISTANCE	NON-FLAME PROPAGATING TO EN50086	HALOGEN FREE	FIRE PERFORMANCE (SEE KEY BELOW)	EMI SCREEN @ 1MHz(dB) (see page 45)
					MIN TO EN50086	MIN STATIC	MAX TO EN50086								
F	VH	H	†	80	-5	-40	120	120	320	150	M	VH*	✓	✓	—
F	H	H	†	80	-5	-40	120	120	350	200	H	VH*	✓	✓	LFH
F	M	M	†	—	-5	-40	120	120	600	350	H	VH*	✓	✓	LFH
F	H	H	†	80	-5	-40	120	120	350	250	H	VH*	✓	✓	ELFH
F	VH	VH	†	80	-45	-50	120	90	250	200	M	VH*	✓	✓	—
F	VH	VH	†	100	-45	-50	120	110	300	220	M	VH*	✓	✓	—
F	VH	VH	†	—	-5	-20	105	90	100	100	M	M*	—	✓	—

F	VH	H	—	—	-45	-60	260	260	600	300	VH	VH	✓	✓	SLFH	—
F	VH	H	—	—	-45	-60	260	260	600	1200*	H	VH	✓	✓	SLFH	98
F	VH	H	—	—	-45	-60	260	260	600	1500	VH	VH	✓	✓	SLFH	61
F	M	H	—	80	-5	-40	120	120	350	1200*	H	VH	✓	✓	ELFH	98
F	M	H	—	80	-5	-40	120	120	350	1500*	VH	VH	✓	✓	ELFH	61

P	M	L	—	—	-5	-5	60	60	400	150	M	H	✓	—	—	—
P	M	L	—	—	-5	-5	60	60	750	250	M	H	✓	—	—	—
P	M	L	—	—	-5	-5	60	60	800	300	M	H	✓	—	—	—
P	VH	M	✓	—	-5	-5	60	60	450	150	M	M	✓	—	—	—

F	H	H	—	40	-45	-50	250	300	1500	1000	M	VH	✓	✓	ILFH	—
F	H	H	—	40	-45	-50	250	350	2550	1700	H	VH	✓	✓	ILFH	—

F	H	M	—	40	-5	-15	90	70*	1500	1000	M	VH	✓	—	—	—
F	M	M	—	50	-25	-40	150	120	1500	1000	H	H	✓	✓	—	—
F	M	M	—	50	-5	-25	105	90	1500	1000	M	H	✓	✓	ELFH	—

F	M	M	—	160	-5	-20	105	105*	2500	1600	M	VH	✓	—	—	—
F	M	H	—	60	-45	-65	150	135*	2500	1600	M	H	✓	✓	—	—
F	M	M	—	N/C	-5	-15	105	75*	2500	1600	M	VH	✓	—	—	—

F	H	H	—	40	-45	-50	250	300	1500	1000	H	VH	✓	✓	ILFH	74
F	H	H	—	40	-45	-50	250	300	1500	1000	H	VH	✓	✓	ILFH	103
F	H	M	—	40	-5	-15	90	70*	1500	1000	H	VH	✓	—	—	74
F	H	M	—	40	-5	-15	90	70*	1500	1000	H	VH	✓	—	—	100
F	M	H	—	50	-45	-65	150	135*	2500	3500*	H	VH	✓	✓	—	72

P	M	L	—	90	-5	-15	90	70	1050	150	M	H	✓	—	—	—
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F = FLEXIBLE
P = PLIABLE

†WITH ADAPTING
FITTINGS

*HIGHER
SHORT-TERM
MAX TEMP
POSSIBLE

*HIGH
SUSPENDED
LOAD
CAPABILITY

*BLACK
ONLY

PERFORMANCE LEVEL KEY

L = LOW
M = MEDIUM
H = HIGH
VH = VERY HIGH

FITTINGS

SYSTEM IP RATING TO EN50086		WHEN USED WITH FITTING RANGE	TYPE	COLOUR/FINISH (SEE KEY BELOW)
66	=	AL	A/C90/FL90+FLC90/45/Y	B/G
66	=	AL	PPA	B
66	=	AL	SA/SFA/SC90/S45/SF45	B/G+N
66	=	AL	UNEK Connectors	B
66, 67	=	AS	A/C90/FL90/T	B/G
40	=	AR	A/C90/FL90/T	B/G
65	=	ADC	FLA/FL90/CP90	B/G
66, 68	=	AS	A/C90 with SWM	B/G

66, 67	=	PK	PK	N
66, 67	=	PB	B	N

40	=	KC	A/C90	B/G/W
65	=	KF	A/2020	W
65	=	XF	A/C90	B

40	=	S	A/B/F	N
40	=	S	C	N

54	=	SP	A/B/F	N
65	=	SP	M	N
00	=	SP	E	N

67	=	SPL	A/B	N
66, 67, 68	=	SPL	M	N
00	=	SPL	E	N

40	=	SB	A/B	N
54	=	SPB	A/B	N
66, 67, 68	=	SPLB	A/B	N

67	=	LSP	A	N
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FIRE PERFORMANCE CLASSIFICATION KEY

PROPERTY	LFH	ELFH	SLFH	ILFH
OXYGEN INDEX ISO4589	31% ≥ OI ≥ 28%	OI ≥ 35%	OI ≥ 35%	Low Fire Hazard i.e. Types S, SS & SB conduit and fittings
BS6853 SMOKE DENSITY 3m³	0.02 ≥ A _s ≥ 0.03	0.005 ≥ A _s ≥ 0.02	A _s ≤ 0.005	
ZERO HALOGEN	✓	✓	✓	
ZERO PHOSPHORUS	✓	✓	✓	
ZERO SULPHUR	✓	✓	✓	Types S, SS & SB conduit and fittings
LONDON UNDERGROUND	CONCESSION	APPROVED	APPROVED	
TOXICITY INDEX NES713 ISSUE 3	5.0 ≥ TI ≥ 6.0	0.5 ≥ TI ≥ 5.0	TI ≤ 0.5	
NFF16-102	I3F2	I2F2	I2F1	

conduit & fitting materials

This chart is designed to assist product selection by detailing the material types of the main components which make up a particular conduit system, i.e. conduit, covering, overbraid, fitting body & thread.

The full names for the abbreviated material types can be found on the next page in the materials key.

NON-METALLIC SYSTEMS

	PAGE NUMBER	CONDUIT TYPE	CONDUIT MATERIALS			FITTING RANGE	FITTING TYPE	FITTING MATERIALS	
			CONDUIT	COVERING	OVERBRAID			BODY	THREAD
ADAPTALOK ADAPTASEAL ADAPTARING FLEXIBLE SYSTEMS	CONDUIT 4-5	PA LIGHT	PA6	—	—	AL	A/C90/FL90/45/Y	PA66	PA66
		PA STANDARD	PA6	—	—	AL	PPA	PP	PP
		PA HEAVY	PA6	—	—	AL	SA/SFA/SC90/SFC90/S45/SF45	PA66+N+EPDM	NPB
	FITTINGS 6-17	PR	PA6	—	—	AL	UNEF Connectors	PA66+N+EPDM	AA
		PI	PA11	—	—	AS	A/C90/FLC90/T	CR+PA66+N+EPDM	
		PIH	PA11	—	—	AR	A/C90/FL/FLC90/T	A+PA66	PA66
		PP	PP	—	—	ADC	FLA/FL90/CP90	PA66	PA66
HI-SPEC FLEXIBLE SYSTEMS	18-19	PK	PK	—	—	PK	PK	NPB	NPB
		PKTC	PK	—	TC				
		PKSS	PK	—	SS316				
		PRTC	PA6	—	TC	PB	B	SC+NPB	NPB
		PRSS	PA6	—	SS316				
KORIFIT PVC PLIABLE SYSTEM & XTRAFLEX FLEXIBLE SYSTEM	20-21	KFL	PVCU	—	—	KC	A/C90	A+PA66	PA66
		KFS	PVCU	—	—	KF	A/2020	PA66	PA66
		KFM	PVCU	—	—				
	22	XF	PVCU+PVC	—	—	XF	A/C90	CR+PA66+N+EPDM	PA66
METALLIC SYSTEMS									
ADAPTASTEEL STEEL FLEXIBLE SYSTEMS	24-25	S	S	—	—	S	A/B/F	NPB	NPB
		SS	SS316	—	—	S	C	NPB	—
ADAPTASTEEL COVERED STEEL FLEXIBLE SYSTEMS	26-27	SP	S	PVC	—	SP	A/B/F	NPB	NPB
		SN	S	TPE	—	SP	M	A+NPB+N+EPDM	NPB/PA6
		LFH-SP	S	PO	—	SP	C/E	NPB	—
ADAPTASTEEL LIQUID TIGHT COVERED STEEL FLEXIBLE SYSTEMS	28-29	SPL	S	PVCOR	—	SPL	A/B	PA6+NPB+N+EPDM	NPB/PA6
		SPLHC	S	TPR	—	SPL	M	A+NPB+N+EPDM	NPB/PA6
		SPUL	S	PVCOR	—	SPL	E	NPB	—
ADAPTASTEEL OVERBRAIDED FLEXIBLE SYSTEMS	30	SB	S	—	S	SB	A/B	NPB	NPB
		STC	S	—	TC				
	31	SPB	S	PVC	S	SPB	A/B	NPB	NPB
		SPTC	S	PVC	TC				
	32	SPLHCB	S	TPR	SS316	SPLB	A/B	PA6+NPB+N+EPDM	NPB/PA6
STAYFLEX PLIABLE SYSTEM	33	LSP	LS*	PVC	—	LSP	A	NPB	NPB

*Includes Kraftpaper liner

To assess the chemical resistance of an assembled system:

- from the Materials Key, compare the material of the conduit & fittings selected, against the main chemical of concern in this chart.
- the least suitable material determines the overall chemical resistance of the system. Phone the Adaptaflex Infoline for other chemicals, concentrations and temperatures.

MATERIALS KEY

Acetal (POM)	Acetal (POM)
Anodised aluminium	Anodised aluminium
Brass	Brass
Copper	Copper
Chloroprene rubber	Chloroprene rubber
EPDM	EPDM
Lead steel	Lead steel
Nitrile (NBR)	Nitrile (NBR)
Nickel plated brass	Nickel plated brass
Polyamide (nylon) 6	Polyamide (nylon) 6
Polyamide (nylon) 11	Polyamide (nylon) 11
Polyamide (nylon) 66	Polyamide (nylon) 66
Polyketone	Polyketone
Polyolefin	Polyolefin
Polypropylene	Polypropylene
Polyurethane	Polyurethane
PVC	PVC
Oil resistant PVC	Oil resistant PVC
Unplasticised PVC	Unplasticised PVC
Galvanised steel	Galvanised steel
Silicone (Q)	Silicone (Q)
Stainless steel grade 316	Stainless steel grade 316
Tinned copper	Tinned copper
Thermoplastic elastomer	Thermoplastic elastomer
Thermoplastic rubber	Thermoplastic rubber

SUITABILITY KEY

- S = SUITABLE
- L = LIMITED SUITABILITY
- U = UNSUITABLE
- A = CONTACT ADAPTAFLX INFOLINE

	A	AA	B	C	CR	E	LS	N	NPB	PA6	PA12	PA66	PK	PO	PP	PU	PVC	PVCOR	PVCU	S	SC	SS316	TC	TPE	TPR
ASTM NO.1	S	S	S	S	S	U	S	S	S	S	S	S	S	S	L	S	S	U	S	S	S	S	S	S	S
ASTM NO.2	S	S	S	S	L	U	S	S	S	S	S	S	S	S	L	S	S	U	S	S	S	S	S	S	L
ASTM NO.3	S	S	S	S	U	U	S	L	S	S	S	S	S	S	L	L	S	U	S	S	S	L	S	S	L
ACETIC ACID (10%)	S	S	U	L	S	S	U	S	S	L	L	L	S	S	S	S	L	L	S	S	U	S	S	L	S
ACETONE	L	S	S	S	L	S	S	U	S	S	S	S	S	U	S	L	U	U	U	U	L	S	S	U	S
ALUMINIUM CHLORIDE	L	S	U	L	S	S	U	S	A	L	S	L	S	S	S	S	L	S	S	U	L	L	L	L	S
ANILINE	S	S	S	S	L	S	S	U	S	L	U	L	L	L	S	U	U	U	U	S	S	S	S	L	S
BENZALDEHYDE	S	S	S	S	U	S	S	U	S	L	L	L	S	U	L	L	U	U	U	S	L	S	S	L	L
BENZENE	S	S	S	S	U	U	S	U	S	S	S	S	S	U	L	L	L	U	U	S	U	S	S	U	U
CARBON TETRACHLORIDE	S	S	S	S	U	U	S	U	S	S	S	S	S	S	U	L	L	L	L	S	U	S	S	U	L
CHLORINE WATER	U	L	U	U	L	L	U	U	S	U	U	U	U	L	L	U	U	U	L	U	L	U	U	U	S
CHLOROFORM	L	S	S	S	U	U	S	U	S	U	U	L	S	U	L	L	U	U	U	S	U	S	S	U	L
CITRIC ACID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
COPPER SULPHATE	S	S	S	S	S	S	S	S	L	S	S	L	S	S	S	S	S	S	S	S	S	S	S	S	S
CRESOL	U	S	L	L	L	U	S	U	S	U	U	U	L	U	S	U	L	L	L	S	U	S	L	L	S
DIESEL OIL	S	S	S	S	L	U	S	S	S	S	S	S	S	L	S	S	L	S	S	S	U	S	S	S	S
DIETHYLAMINE	U	S	S	S	U	U	S	U	S	S	L	S	S	S	S	U	L	L	L	S	L	S	S	L	S
ETHANOL	S	S	S	S	S	S	S	S	S	S	L	S	S	L	S	L	U	U	S	S	S	S	S	L	S
ETHER	S	S	S	S	L	U	S	U	S	S	S	S	S	U	S	S	L	L	S	S	U	S	S	L	S
ETHYLAMINE	L	S	S	S	U	S	S	S	S	L	S	S	L	S	U	L	L	L	L	S	U	S	S	L	L
ETHYLENE GLYCOL	S	S	S	S	S	S	U	S	S	S	S	S	S	S	S	S	L	L	S	U	S	S	S	L	S
ETHYL ETHANOATE	S	S	S	S	U	S	S	S	L	S	L	S	L	U	S	U	U	U	S	L	S	S	U	S	S
FREON 32	S	S	S	S	S	S	U	S	S	S	S	S	S	U	S	L	L	L	L	U	U	S	S	U	U
HYDROCHLORIC ACID (10%)	L	L	U	U	S	U	S	U	L	U	S	U	S	U	L	S	S	S	S	U	L	U	U	U	S
HYDROCHLORIC ACID (36%)	U	L	U	U	S	L	U	S	U	U	U	U	S	U	S	U	L	S	S	U	U	U	U	U	S
HYDROGEN PEROXIDE (35%)	S	U	S	S	S	U	S	S	L	L	L	L	S	L	S	U	S	S	S	S	S	S	L	L	S
HYDROGEN PEROXIDE (87%)	U	S	U	L	U	A	U	S	S	U	U	U	S	U	L	U	S	S	S	U	L	S	L	U	U
LACTIC ACID	U	L	L	S	S	U	S	L	S	L	S	L	S	S	S	S	L	L	L	U	S	S	S	L	S
LUBRICATING OIL	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	L	S	S	S	U	S	S	S	L
METHANOL	S	S	S	S	S	S	S	L	L	L	L	L	S	L	S	L	U	U	S	S	S	S	L	S	S
METHYL BROMIDE	U	S	S	S	U	U	S	S	U	U	U	S	U	L	U	U	U	U	S	U	S	S	U	L	S
MEK	S	S	S	S	S	S	S	S	S	S	S	S	S	U	S	L	U	U	U	S	U	S	S	U	S
NITRIC ACID (10%)	L	L	U	U	L	S	U	S	U	U	U	U	S	S	S	S	U	S	S	U	L	U	U	U	S
NITRIC ACID (70%)	U	L	U	U	U	U	S	U	U	U	U	U	U	U	S	S	S	S	S	U	U	U	U	U	S
OXALIC ACID	L	S	U	L	S	S	U	S	L	S	L	S	S	S	L	L	S	S	U	L	S	L	S	S	S
OZONE (GAS)	U	S	S	S	L	S	U	S	U	U	U	S	S	L	S	L	L	L	S	U	S	S	S	L	S
PARAFFIN OIL	S	S	S	S	L	U	S	S	S	S	S	S	S	L	S	L	S	S	S	S	S	S	S	S	S
PETROL	S	S	S	S	U	U	S	S	S	S	S	S	S	U	S	S	U	S	S	S	U	S	S	S	S
PHENOL	U	S	L	L	L	S	S	S	U	U	U	L	U	S	L	L	L	L	S	S	S	L	L	S	S
SEA WATER	S	S	L	S	S	U	S	L	S	S	S	S	S	S	S	S	S	S	S	U	S	S	S	S	S
SILVER NITRATE	S	S	U	S	S	U	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
SKYDROL	S	S	S	S	L	L	S	S	S	S	S	S	S	U	S	L	U	U	U	S	L	S	S	L	S
SODIUM CHLORIDE	S	S	U	S	S	S	U	S	L	S	S	S	S	S	S	S	S	S	S	U	S	S	S	S	S
SODIUM HYDROXIDE (10%)	S	U	U	S	S	U	S	S	S	S	S	S	S	S	S	S	S	S	S	U	S	S	S	S	S
SODIUM HYDROXIDE (60%)	S	U	U	S	S	U	S	S	S	L	S	S	S	S	L	S	L	S	S	U	S	L	S	L	S
SULPHUR DIOXIDE (GAS)	U	L	U	L	L	S	U	L	U	U	U	U	S	L	S	U	S	S	S	U	S	U	L	L	S
SULPHURIC ACID (10%)	U	L	U	U	S	S	U	U	U	U	U	U	S	S	S	L	S	S	S	U	L	U	U	L	S
SULPHURIC ACID (70%)	U	L	U	U	L	S	U	U	U	U	U	U	L	S	U	S	S	S	S	U	U	U	U	U	S
TOLUENE	S	S	S	S	U	U	S	S	S	S	S	S	S	L	S	U	U	U	U	S	U	S	S	U	U
TRANSFORMER OIL	S	S	S	S	L	U	S	S	S	S	S	S	S	L	S	S	L	S	S	L	S	S	S	L	S
1,1,1-TRICHLOROETHANE	S	S	S	S	U	U	U	S	S	S	S	S	S	L	L	L	U	U	U	U	S	S	U	L	S
TRICHLOROETHYLENE	L	S	S	S	U	U	U	S	L	U	L	S	L	L	L	L	U	U	U	U	S	S	U	U	S
TURPENTINE	S	S	S	S	U	U	S	S	S	S	S	S	S	U	U	L	L	L	S	S	S	S	L	U	U
VEGETABLE OIL	S	S	S	S	S	L	S	S	S	S	S	S	S	L	S	S	L	S	S	L	S	S	S	S	S
VINYL ACETATE	L	S	S	S	S	U	L	S	L	S	L	S	L	S	U	S	U	U	U	U	S	S	U	S	S
WATER	S	S	S	S	S	U	S	S	S	S	S	S	S	S	S	S	S	S	S	U	S	S	S	S	S
WHITE SPIRIT	S	S	S	S	L	U	S	S	S	S	S	S	S	S	S	L	L	L	S	S	U	S	S	L	L
ZINC CHLORIDE	S	L	U	L	S	S	U	S	S	U	S	U	S	S	S	S	S	S	S	U	S	S	L	L	S

NON METALLIC SYSTEMS	WITH FITTING	1 COMPRESSION	2 IMPACT	3 MIN. TEMP.	4 MAX. TEMP.	5 BENDING	6 ELECTRICAL	7 SOLID INGRESS (IP)	8 LIQUID INGRESS (IP)	9 CORROSION	10 TENSILE	11 NON-FLAME PROPAGATING	12 SUSPENDED LOAD
PA LIGHT	AL	2	4	2	4	4	0	6	6	0	1	1	0
PA STANDARD	AL	2	4	2	4	4	0	6	6	0	1	1	0
PA HEAVY	AL	2	4	2	4	4	0	6	6	0	2	1	0
PR	AL	2	4	2	4	4	0	6	6	0	1	1	0
PI	AL	1	3	5	4	4	0	6	6	0	1	1	0
PIH	AL	2	4	5	4	4	0	6	6	0	1	1	0
PP	AL	2	3	2	3	4	2	6	6	0	1	2	0

PK	PK	2	4	5	6	4	3	6	7	0	3	1	0
PKTC	PB	2	4	5	6	4	3	6	7	0	3	1	0
PKSS	PB	2	4	5	6	4	3	6	7	0	3	1	0
PRTC	PB	2	4	2	4	4	1	6	7	0	3	1	0
PRSS	PB	2	4	2	4	4	1	6	7	0	3	1	0

KFL	KC	2	2	3	1	2	2	4	0	0	1	1	0
KFS	KC	2	3	3	1	2	2	4	0	0	2	1	0
KFM	KC	3	3	3	1	2	2	4	0	0	1	1	0

METALLIC SYSTEMS

S	S	4	4	5	6	4	0	4	0	1	4	1	5
SS	S	4	4	5	6	4	0	4	0	4	4	1	5

SP	SP(M)	4	4	2	2	4	2	6	5	0	4	1	5
SN	SP(M)	4	4	4	5	4	0	6	5	0	4	1	5
LFH-SP	SP(M)	4	4	2	3	4	0	6	5	0	4	1	5

SPL	SPL(M)	4	4	2	3	4	2	6	7	0	4	1	5
SPLHC	SPL(M)	4	4	5	5	4	0	6	7	0	4	1	5

SB	SB	4	4	5	6	4	1	4	0	1	4	1	0
STC	SB	4	4	5	6	4	1	4	0	1	4	1	0
SPB	SPB	4	4	2	2	4	3	5	4	0	4	1	0
SPTC	SPB	4	4	2	2	4	3	5	4	0	4	1	0
SPLHCB	SPLB	4	4	5	5	4	1	6	7	0	5	1	0

LSP	LSP	3	4	2	2	2	2	6	7	0	1	1	0
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Information based on nominal 20mm conduit size

PERFORMANCE CLASSIFICATION KEY

CLASSIFICATION LEVEL	COMPRESSION STRENGTH (N)	IMPACT STRENGTH (J)	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)	BENDING	ELECTRICAL PROPERTIES	IP RATING (SOLID INGRESS)	IP RATING (WATER INGRESS)	CORROSION RESISTANCE	TENSILE STRENGTH (N)	NON-FLAME PROPAGATING	SUSPENDED LOAD CAPACITY (N)
0	-	-	-	-	-	Not declared	-	0	N/A	Not declared	-	Not declared
1	125	0.5	5	60	Rigid	Conductor	-	1	Low	100	✓	20
2	320	1	-5	90	Pliable	Insulator	-	2	Medium	250	✗	30
3	750	2	-15	105	Plt/Semi Rigid	Con/Ins	3	3	Med-Hi	500	-	150
4	1250	6	-25	120	Flexible	-	4	4	High	1000	-	450
5	4000	20	-45	150	-	-	5	5	-	2500	-	850
6	-	-	-	250	-	-	6	6	-	-	-	-
7	-	-	-	-	-	-	-	7	-	-	-	-

In 1995/96 the new European standards for flexible and pliable conduit systems (BS EN 50086-2.3 & BS EN 50086-2.2) were published by BSI.

This is the first European standard for such conduit systems and has been written to conform to the Low Voltage Directive (LVD) and the Construction Product Directive (CPD).

EN50086 is a performance standard which identifies key product characteristics (detailed below). For each of these characteristics there are recommended tests with associated performance classifications.

The adjacent table and key allow you to check product suitability in line with the EN50086 performance classifications.

Compression Strength (Performance Classification 1)

Resistance to deformation under compressive load.

Impact Resistance (Performance Classification 2)

Resistance to brittle fracture and deformation under impact.

Minimum Temperature to EN50086 (Performance Classification 3)

The minimum operating temperature defined by the bending classification.

Maximum Temperature to EN50086 (Performance Classification 4)

The maximum operating temperature defined by the bending classification.

Bending to EN50086 (Performance Classification 5)

Flexible and pliable conduits can be bent by hand.

Flexible systems may flex frequently throughout their life and are suitable for both static and dynamic applications.

Pliable systems are intended only for static applications.

Electrical Properties (Performance Classification 6)

Conduit systems defined as electrical conductors or insulators.

System IP Rating to EN50086 (Performance Classifications 7 & 8) (see definitions on page 43)

The resistance of an assembled system to the ingress of solids and liquids, dependent on the combination of conduit and fittings.

The point of entry into adjoining equipment may require independent sealing to maintain the system IP rating, see sealing washers on page 23.

Corrosion (Performance Classification 9)

Metallic systems defined by their resistance to corrode under exposure to water vapour.

Tensile Strength (Performance Classification 10)

Resistance of a system to a short term tensile load at ambient temperature.

Non-Flame Propagating to EN50086 (Performance Classification 11)

Self-extinguishing within a given time once a fire source is removed.

Suspended Load Capability (Performance Classification 12)

Resistance of a fitting to a high continuous tensile load at maximum temperature.

Thread Data

METRIC

Standard thread conforming to EN60423 & BS3643

PG

German Standard thread conforming to DIN40430

PF

Japanese conduit thread conforming to JIS B 0202

NPT

US taper seal pipe thread conforming to ANSI/ASME B1.20.1 – 1983

UNEF

American Unified Thread conforming to BS1580

THREAD SIZE mm	EXT THREAD OUTSIDE DIAMETER	INT THREAD INSIDE DIAMETER	PITCH	THREAD SIZE mm	EXT THREAD OUTSIDE DIAMETER	INT THREAD INSIDE DIAMETER	PITCH	THREAD SIZE (inches)	EXT THREAD OUTSIDE DIAMETER	INT THREAD INSIDE DIAMETER	PITCH	THREAD SIZE (inches)	EXT THREAD OUTSIDE DIAMETER	INT THREAD INSIDE DIAMETER	PITCH	THREAD SIZE (inches)	EXT THREAD OUTSIDE DIAMETER	INT THREAD INSIDE DIAMETER	PITCH
M8	8.0	6.9	1.0	PG7	12.5	11.3	1.27	1/4	13.0	—	1.34	—	—	—	5/8	15.9	14.7	1.06	
M10	10.0	8.9	1.0	PG9	15.2	13.9	1.41	3/8	16.7	15.0	1.34	3/8	16.7	14.4	1.14	3/4	19.1	17.7	1.27
M12	12.0	10.9	1.0	PG11	18.6	17.3	1.41	1/2	21.0	18.6	1.81	1/2	21.0	18.6	1.81	13/16	20.6	19.3	1.27
M12	12.0	10.4	1.5	PG13.5	20.4	19.1	1.41	3/4	26.4	24.1	1.81	3/4	26.4	24.1	1.81	7/8	22.2	20.9	1.27
M16	16.0	14.4	1.5	PG16	22.5	21.2	1.41	1	33.3	30.3	2.31	1	33.3	30.3	2.21	15/16	23.8	22.4	1.27
M18	18.0	16.9	1.0	PG21	28.3	26.8	1.59	1 1/4	41.9	39.0	2.31	1 1/4	41.9	39.0	2.21	1	25.4	24.0	1.27
M20	20.0	18.4	1.5	PG29	37.0	35.5	1.59	1 1/2	47.8	44.8	2.31	1 1/2	47.8	44.8	2.21	1 1/8	28.6	27.0	1.41
M25	25.0	23.4	1.5	PG36	47.0	45.5	1.59	2	59.6	56.7	2.31	2	59.6	56.7	2.21	1 3/16	30.2	28.6	1.41
M30	30.0	28.4	1.5	PG42	54.0	52.5	1.59	—	—	—	—	—	—	—	—	1 1/4	31.8	30.2	1.41
M32	32.0	30.4	1.5	PG48	59.3	57.8	1.59	—	—	—	—	—	—	—	—	1 5/16	33.3	31.8	1.41
M40	40.0	38.4	1.5	—	—	—	—	—	—	—	—	—	—	—	—	1 3/8	34.9	33.4	1.41
M50	50.0	48.4	1.5	—	—	—	—	—	—	—	—	—	—	—	—	1 7/16	36.5	35.0	1.41
M63	63.0	61.4	1.5	—	—	—	—	—	—	—	—	—	—	—	—	1 3/4	44.5	42.9	1.41
M75	75.0	73.4	1.5	—	—	—	—	—	—	—	—	—	—	—	—	2	50.8	49.3	1.41
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 1/4	57.2	55.4	1.41

NOTE: Dimensions are nominal & in mm unless otherwise stated.

IP Ratings

The degree of ingress protection is indicated by two digits following the letters IP. The first refers to protection against the ingress of solid objects, the second refers to protection against the ingress of water.

Protection against solids
1st Digit

- 4** Protection against solid bodies larger than 1mm
- 5** Protection against dust (no harmful deposits)
- 6** Complete protection against dust

Example

Adaptalok system is IP66 which provides complete protection against dust and protection against jets of water of similar force to heavy seas.

Protection against water
2nd Digit

- 0** No protection
- 4** Protection against projections of water from all directions
- 5** Protection against jets of water from all directions
- 6** Protection against jets of water of similar force to heavy seas
- 7** Protection against ingress of water to a depth of 1 metre
- 8** Continuous submersion at a quoted pressure and time e.g. 2 bar at 24 hours

Cable Carrying Capacity

UK wiring regulations, BS7671 recommend that the total cross sectional area of the sum of the individual cables should not exceed 40% of the cross sectional area of the conduit. The nominal cross sectional area of single-core, stranded, PVC insulated cables is provided as a guide only. Other cables may have different dimensions.

NOMINAL CONDUCTOR SIZE (mm²)	NOMINAL OVERALL CROSS SECTIONAL AREA (mm²)
1.0	6.6
1.5	7.6
2.5	9.6
4.0	14.5
6.0	18.8
10.0	29.3
16.0	40.2
25.0	63.8
35.0	83.5
50.0	113.0
70.0	149.0
95.0	204.0

Example: Is SP20 suitable for five 4.0mm² & two 1.5mm² cables?

- The total cross sectional area of the conductors is 5 x 4.0mm² + 2 x 1.5mm² = 23.5mm²
- The cross sectional area of SP20 is 3.142 x $\left[\frac{\text{Inside Diameter}}{2} \right]^2 = 224\text{mm}^2$
- % of conduit cross sectional area $\left[\frac{(a)}{(b)} \right] \times 100 = 39.1\%$

This is less than 40% therefore this conduit is suitable for this combination of cables.

The easiest way of installing cables into flexible & pliable conduit is to simultaneously draw in the cables with the conduit in straight condition before installation. UK wiring regulations prohibit the use of flexible or pliable conduit as an earthing conductor. Please phone the Adaptaflex Infoline for further guidance.

As a worldwide supplier of conduit systems, Adaptaflex has an expanding portfolio of international approvals obtained from the various organisations indicated below.

The table shows the relevant approvals obtained for each conduit system.

Since approvals are constantly being added, audited & updated, please phone the Adaptaflex Infoline for the latest details.

METALLIC SYSTEMS								NON-METALLIC SYSTEMS										
CONDUIT TYPE	WITH FITTING	KITE MARK BS EN 50086	CE LVD	LLOYDS	UL SP	LUL COMPLIANCE	AUS EX930	CONDUIT TYPE	WITH FITTING	KITE MARK BS EN 50086 OR IMQ	CE LVD	LLOYDS	UL SP	CSA 227.3 M-91 LISTED	NF RT3-903	LUL COMPLIANCE	DIN 5510	NF 16-102
S	S	✓	✓	–	–	–	–	PA LIGHT	AL	✓	✓	–	UR	–	–	CONCESSION	✓	–
SS	S	✓	✓	–	–	–	–	PA STANDARD	AL	✓	✓	✓	UR	–	✓	CONCESSION	✓	I4F3
SP	SP(M)	✓	✓	–	–	–	–	PA HEAVY	AL	✓	✓	✓	UR	✓*	✓	CONCESSION	✓	I4F3
SN	SP(M)	✓	✓	–	–	–	–	PR	AL	✓	✓	✓	UR	–	–	APPROVED	✓	I2F2
LFH-SP	SP(M)	✓	✓	✓	–	FULL	–	PI	AL	✓	✓	–	UR	–	–	CONCESSION	✓	I4F3
SPL	SPL(M)	✓	✓	✓	UR	–	✓	PIH	AL	–	✓	–	UR	✓*	–	CONCESSION	✓	I4F3
SPLHC	SPL(M)	✓	✓	–	–	–	–	PP	AL	–	✓	–	–	–	–	–	–	–
SPUL	–	–	✓	–	UL+CSA	–	–	PK	PK	✓	✓	–	–	–	–	FULL	–	I2F1
SB	SB	✓	✓	–	–	–	–	PKTC	PB	–	✓	–	–	–	–	FULL	–	I2F1
STC	SB	✓	✓	–	–	–	–	PKSS	PB	–	✓	–	–	–	–	FULL	–	I2F1
SPB	SPB	✓	✓	–	–	–	–	PRTC	PB	–	✓	–	–	–	–	APPROVED	–	I2F2
SPTC	SPB	✓	✓	–	–	–	–	PRSS	PB	–	✓	–	–	–	–	APPROVED	–	I2F2
SPLHCB	SPLB	✓	✓	–	–	–	–	KFL	KC	16 · 25	✓	–	–	–	–	–	–	–
LSP	LSP	✓	✓	–	–	–	–	KFS	KC	16 · 25	✓	–	–	–	–	–	–	–
								KFM	KC	16 · 25	✓	–	–	–	–	–	–	–
								XF	XF	✓	✓	–	–	–	–	–	–	–

*17, 22, 28, 34, 42mm only.

* 17, 22, 28, 34, 42mm only.

Glossary

Fire Performance

Adaptaflex has introduced a set of symbols to help the user specify conduit systems for installations where fire performance is of particular concern.

Each symbol encompasses a range of properties relevant to the high specification materials used in the construction of the conduit.

They are in an ascending scale of performance from Low Fire Hazard (LFH) featuring zero halogen through to Super Low Fire Hazard (SLFH) featuring zero nitrogen. In addition, Inherent Low Fire Hazard systems (ILFH) are classified as being all metal systems.

For more detailed information on fire performance classifications, see the key on page 39.



LOW
FIRE HAZARD



ENHANCED LOW
FIRE HAZARD



SUPER LOW
FIRE HAZARD



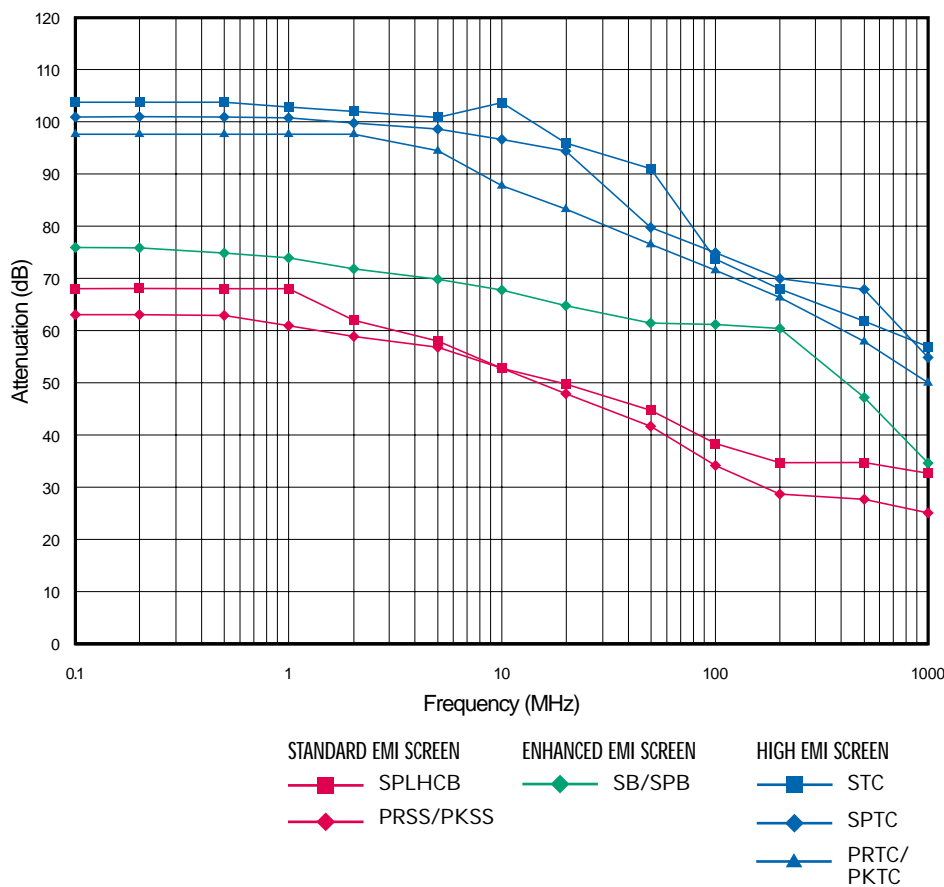
INHERENT LOW
FIRE HAZARD

The European Directive on Electromagnetic Compatibility (EMC) 89/336/EEC requires any electrical equipment/ installation to be constructed so that it neither produces Electromagnetic Interference (EMI), sufficient to interfere with radio and telecommunications equipment, nor is itself affected by EMI.

All conduit systems are considered electrically passive since they do not produce or are affected by EMI. However, Adaptaflex has introduced a new range of "Screen Systems" which offer a cost-effective alternative to individually screened cables within applications where cross talk has no adverse effect.

Additionally the user gains the mechanical advantages of a conduit system and a simplified means of modification; e.g. addition, substitution or replacement of cables in an existing cable run.

The graph below shows the results of different types of 20/21mm diameter screened conduit, with its appropriate fittings, tested by ERA Technology, to IEC96/2:93 (Radio frequency cables Part 1). Tests measured attenuation in decibels (dB) over the frequency range covered by the EMC Directive, 0.1 to 1000MHz. The test data allows comparison with other screened conduit systems, and cables tested to IEC 96-1.



ADAPTAFLEX TRADE MARKS

Adaptaflex, Adaptaflex Screen Systems, Adaptaflex Hi-Spec Systems, Adaptalok, Adapting, Adaptaseal, Adaptaflex, Korifit, Stayflex & Xtraflex.

ADAPTAFLEX PATENTS

Adaptalok fittings; type KF Korifit fittings; type B Adaptaseal fittings; type AWB anti-vibration washer; pending on type ACB/ACG conduit clips.

ERRORS, OMISSIONS & AMENDMENTS EXCEPTED

Information given in this document was correct to the best of our knowledge at the original publication date and is for guidance only.

Adaptaflex is not liable for claims arising from product misuse.

Our policy is one of continuous development and specifications may change at any time.

EMI Screen Systems

For applications where electromagnetic interference is of particular concern we have classified suitable conduit systems by means of symbols. These are related in an ascending scale of performance from Standard EMI Screen (products featuring a stainless steel overbraid) through to High EMI Screen (products featuring a tinned copper overbraid).

For more detailed information see above.



**STANDARD
EMI SCREEN**



**ENHANCED
EMI SCREEN**



**HIGH
EMI SCREEN**

Fitting Characteristics



FITTING OR THREAD SWIVELS INDEPENDENTLY OF CONDUIT DURING INSTALLATION BUT IS NOT SUITABLE AS A ROTATING JOINT IN CONSTANTLY MOVING APPLICATIONS



FITTING ROTATES INDEPENDENTLY OF THE CONDUIT TO ACT AS A ROTATING JOINT WITHIN CONSTANTLY MOVING APPLICATIONS