



**Conduit**  
Highly Flexible – High Fatigue life

**Construction**  
Standard Weight Polyamide 6



## Non-Metallic Systems TYPE PAS

**Applications** Machinery (Low mechanical protection)  
Buildings (No Fire Risk)  
Rail

**Fittings** IP68 ATS, Adaptaseal, Adaptalok + ALS Seal Fittings  
IP66 ATS, Adaptaseal, Adaptalok Fittings  
IP40 Adapting Fittings, Jumbo Fittings

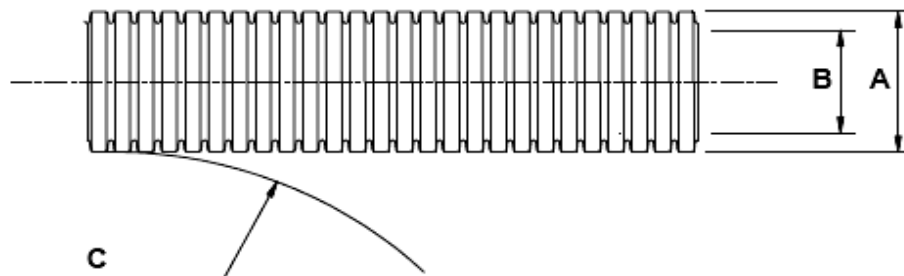
**Characteristics** High UV Resistance  
High Flexibility and Fatigue Life  
Self Extinguishing  
Halogen Free

**Approvals** NFR 13-903  
NFR 16-10/12 I3,F3  
Deutsche Bahn S4, SR2, ST2  
London Underground (On Concession)  
Lloyd's Register of Shipping (Type Approval)  
BSI Kitemark KM35161  
UL Recognition File: E135398  
CE LVD  
ASTM E662

**Material** Flame Retardant  
Heat Stabilised  
Polyamide 6



Part No.	Conduit Size			Dimensions				
	NC	NW	Pitch	(B) Inside Diameter	(A) Outside Diameter	Reel Length	(C) Min Bend Radius	Colour
PAFS10	10	8.5	F	6.5	10	50	15	BL/GR
PAFS13	13	10.0	F	9.6	13	50	25	BL/GR
PAFS16	16	13.0	F	11.8	15.8	50	35	BL/GR
PAFS21	21	17.0	F	16.5	21.2	50	45	BL/GR
PAFS28	28	23.0	F	22.6	28.5	50	50	BL/GR
PACS28	28	23.0	C	21.7	28.5	50	50	BL/GR
PAFS34	34	29.0	F	28.8	34.5	50	60	BL/GR
PACS34	34	29.0	C	27.7	34.5	50	60	BL/GR
PACS42	42	36.0	C	35.2	42.5	25	65	BL/GR
PACS54	54	48.0	C	46.5	54.5	25	75	BL/GR
PACS80	80	70.0	C	67.0	79.3	10	160	BL/GR
PACS106	106	95.0	C	91.5	106.0	10	210	BL/GR





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### Mechanical Properties

Test Type	Method/Standards	Requirements	Value
Crush Strength	IEC 61386	<25% crush >90% recovery	>320N
Tensile Strength	AFX norm T1987	Pull off of fitting	100N
Impact Strength	IEC 61386	No Cracks. <20% deformation	>6.0 J
Static Bend Radius	AFX norm T1985		45mm
Dynamic Bend radius	IEC 61386	5000 cycles minimum	80mm

### Thermal Properties

Test Type	Method/Standards	Requirements	Value
Minimum Temperature		Permanent use	-40 °C
Maximum Temperature		Permanent use	120 °C
Maximum Short Term Temperature		Temporary use	150 v
Cold Bend @ -40 °C	NFR13-903	2xOD	Pass

### Flammability, Smoke and Toxicity (FST) Performance

Test Type	Method/Standard	Requirement	Result	Unit
Flammability	IEC 61386	Vertical Burn	Pass	Pass/Fail
Flammability	UL94	Vertical Burn	V2	HB-V0
Oxygen Index	ISO 4589		38	%
Ignition Rating	NFF 16-101/2	Glow Wire & oxygen Index	I3	-
Fume Rating	NFF 16-101/2	Smoke & Toxicity	F3	-
Sulphur Content	London Underground	<0.5%	Pass<0.1%	Pass/Fail
Halogen Content	London Underground	<0.5%	Pass<0.1%	Pass/Fail
Phosphorus Content	London Underground	<.5%	Pass<0.1%	Pass/Fail
Glow Wire	IEC 695	>750 °C	>850 °C	°C
Toxicity (Marine)	NES713 Issue 3	<10.0	5.2	-
Toxicity	BS 6853 App B.1		2.17	-
Smoke Density	ASTM E662	Ds <100 in both modes	21/65	Ds max

### Pre test Conditions

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



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### Chemical Properties

Suitable  Limited Suitability

Astm No.1	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Methanol	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>
Astm No.2	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Methyl Bromide	Not Suitable
Astm No.3	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	MEK	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Acetic Acid (10%)	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Nitric Acid (10%)	Not Suitable
Acetone	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Nitric Acid (70%)	Not Suitable
Aluminium Chloride	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Oxalic Acid	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>
Aniline	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Ozone (Gas)	Not Suitable
Benzaldehyde	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Paraffin oil	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Benzene	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Petrol	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Carbon tetrachloride	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Phenol	Not Suitable
Chlorine water	Not Suitable	Sea Water	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Chloroform	Not Suitable	Silver Nitrate	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Citric Acid	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Skydrol	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Copper Sulphate	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Sodium Chloride	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Cresol	Not Suitable	Sodium Hydroxide (10%)	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Diesel oil	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Sodium Hydroxide (60%)	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Diethylamine	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Sulphur Dioxide (Gas)	Not Suitable
Ethanol	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Sulphuric Acid (10%)	Not Suitable
Ether	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Sulphuric Acid (70%)	Not Suitable
Ethylamine	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Toluene	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Ethylene Glycol	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Transformer Oil	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Ethyl Ethanoate	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	1,1,1-Trichloroethane	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Freon 32	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Trichloroethylene	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>
Hydrochloric Acid (10%)	Not Suitable	Turpentine	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Hydrochloric Acid (36%)	Not Suitable	Vegetable Oil	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Hydrogen Peroxide (35%)	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	Vinyl Acetate	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>
Hydrogen Peroxide (87%)	Not Suitable	Water	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Lactic Acid	<span style="display: inline-block; width: 100px; height: 10px; background-color: orange; border: 1px solid black;"></span>	White Spirit	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>
Lubricating oil	<span style="display: inline-block; width: 100px; height: 10px; background-color: green; border: 1px solid black;"></span>	Zinc Chloride	Not Suitable

The information above is given as a guide only and is based on published technical data and experience. The chemical resistance of the above products is dependant on factors such as chemical exposure, concentration of the chemical and temperature. The above chemicals are valid for a temperature of 23°C. Use of the above table is at the users own discretion and risk. Those using it must satisfy themselves that their application presents no health and safety risks. The end user should assess compatibility with their application and contact Adaptaflex for further information.

### IEC 61386 CLASSIFICATION

	Fitting	Compression	Impact	Min temp	Max temp	Bending	Electrical	IP Solids	IP Water	Corrosion	Tensile	Non-Flame Propagation	Suspended Load
PA Standard	AL	2	4	2	4	4	0	6	6	-	1	1	0



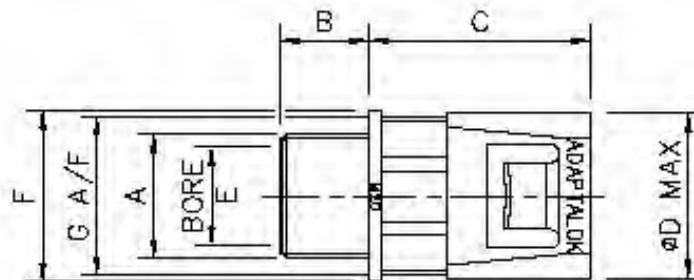
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## Dimension charts for associated fittings ADAPTALOK



PART No.	THREAD A	NOMINAL DIMENSIONS (mm)						WEIGHT gms.
		B	C	D	E	F	G	
AL10/M12/A	M12x1.5	10.0	25.0	16.1	7.5	15.2	12.5	3
AL13/M16/A	M16x1.5	11.5	33.0	21.3	11.6	19.0	17.0	5
AL16/M16/A	M16x1.5	11.5	33.0	23.7	11.6	23.7	19.8	6
AL16/M20/A	M20x1.5	11.5	33.0	23.7	15.3	23.4	19.8	7
AL18/M20/A	M20x1.5	11.5	34.0	26.3	15.0	23.0	21.6	7
AL20/M20/A	M20x1.5	13.0	34.8	28.1	14.8	26.8	21.7	9
AL21/M20/A	M20x1.5	14.0	34.7	28.9	14.8	26.7	25.0	9
AL21/M25/A	M25x1.5	11.0	35.75	29.0	17.8	31.5	25.0	10
AL25/M25/A	M25x1.5	16.0	35.9	32.8	20.0	30.8	28.7	12
AL28/M25/A	M25x1.5	16.2	36.8	36.8	20.0	35.5	32.3	14
AL28/M32/A	M32x1.5	12.2	37.1	36.8	22.3	37.7	32.5	17
AL34/M32/A	M32x1.5	16.0	37.8	43.2	26.5	41.5	38.9	20
AL34/M40/A	M40x1.5	12.1	37.9	43.0	30.3	45.3	39.0	23
AL42/M40/A	M40x1.5	16.0	47.8	53.8	31.0	52.8	49.5	45
AL42/M50/A	M50x1.5	12.1	48.1	54.0	37.8	66.8	50.0	57
AL54/M50/A	M50x1.5	16.0	53.0	66.9	40.2	67.2	62.6	71
AL54/M63/A	M63x1.5	16.0	53.0	66.9	50.0	70.0	62.6	75