

Type PAH

Heavy weight conduit



Flexible heavyweight, PAH nylon (PA6) conduit is a flame retardant conduit suitable for a wide range of applications.

Certifications / Standards:

(Refer to tables for certifications details)



Features & benefits:

- Standard weight - fire resistant conduit
- Medium flexibility & fatigue life
- Self-extinguishing, low smoke toxicity and halogen Free
- Very high UV resistance
- Available in black and grey

Applications:

- Construction - Commercial - Institutional
- OEM Assembly – Automation, Machinery, Panel builders
- Harness makers
- OEM Vehicles – Rail, Automotive, Marine
- Utility – Power & Energy, ICT & Data centre, Water & Waste
- Industry processing – pulp, paper, wood, food
- Infrastructure & Transport

Temperature range:

- Static applications: -40°C to +120°C
- Moving applications: -25°C to +150°C

UV Resistance:

- Very high

Material / Materials / Finishes:

- Fire Resistant Polyamide (Nylon) PA 6

Ingress protection:

- IP40 - Adapting & Jumbo Fittings
- IP66 - ATS, Adaptalok, Adaptaseal
- IP67 - ATS, Adaptalok with ALS Seal, Adaptaseal
- IP68 - ATS, Adaptalok with ALS Seal, Adaptaseal
- IP69 - ATS, Adaptalok with ALS Seal, Adaptaseal

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) EU2000/53/EC
- BS Kitemark KM-35161
- Deutsche Bahn S4, SR2, ST2
- EN45545-2 HL2 (R22 & R23)
- UL1696 / CSA 22.2 No:227.3 - File number E173968
- GOST C-GB 3031.B.00311

Fire performance:

Test standard	Performance rating
EN45545	HL2 (R22 & R23)
BS6855-1	Pass
UL94	V0
DIN 5510-2	S4 SR2 ST2 FED 0.504

Chemical resistance:

- View our chemical resistance guide [here](#).

Type PA_H Conduit – Part numbers and dimensions

Part No.	Conduit size		Dimensions (mm)			Reel Length (m)
	(NC)	Conduit Pitch	Outside Dia. (A)	Inside Dia. (B)	Bend radi (C)	
**PAFH13	13	Fine	13.10	9.55	40	50
PAFH16	16	Fine	16.05	11.15	50	50
PACH21	21	Coarse	21.20	15.40	65	50
PACH28	28	Coarse	28.35	21.35	85	50
PACH34	34	Coarse	34.50	26.70	105	50
PACH42	42	Coarse	42.40	34.60	130	25
PACH54	54	Coarse	54.30	46.20	165	25

Part number example: To order quote part number & reel length, e.g. PACH21/BL/50M.

**UR not applicable to size 13

Mechanical properties

Test type	Standard	Requirement	Status
Crush strength	BS EN 61386-1	<25% crush >90% recovery	>320N (Class 2)
Impact strength @ -5°C	BS EN 61386-1	No cracks <20% deformation min value	>6J (Class 4)
Tensile strength	AFX norm T1987	Fitting pull off minimum vale	250N
Static bend radius	AFX norm T1987	21mm conduit	65mm
Dynamic bend radius @ -15 °C	BS EN 61386-23	5000 cycles minimum	120mm

Thermal properties

Test type	Standard	Requirement	Value
Minimum temperature	-	Permanent static use	-40°C
Minimum temperature	BS EN 61386-23	Dynamic Use (5000 cycles)	-5°C
Maximum temperature	-	Permanent use	120°C
Maximum temperature	BS EN 61386-23	Dynamic Use (5000 cycles)	150°C
Cold bend @40°C	NFR13-903	2xOD	Pass

Flammability

Test type	Standard	Requirement	Result	Value
Oxygen index	ISO 4589-2	% Oxygen to support combustion	28.5	%
Glow wire	IEC 60695	No ignition to extinguish within 30s	850	°C
Flammability	UL94	Vertical (V0, V2) or Horizontal (HB)	V0	
Flammability	BS EN 61386-1	1KW burner at 45°	Pass	

Smoke

Test type	Standard	Requirement	Result	Unit
Optical Density	ISO-5659-2	<150 (HL3 R22)	148	
Smoke Density	BS-6853	A <0.061 (Class II)	0.026	A _o
Smoke Density	ASTM E-662	Ds < 100 in both modes	21/65	Ds Max

Toxicity

Test type	Standard	Requirement	Result	Value
Halogen free	LUL	<0.5%	Pass	Pass/Fail
Phosphorous free	LUL	<0.5%	Pass	Pass/Fail
Sulphur free	LUL	<0.5%	Pass	Pass/Fail
Toxicity	NF X70-100-1&2	C.I.T NLP <0.75 (HL3 R22)	0.59	
Toxicity	BS 6853	<3.6 (Class II)	2.95	
Toxicity	DIN5510-2	FED t _{zul} = 30min <1	0.504	

Pre-test conditions

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

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