

TECHNICAL DATA SHEET

PMAFLEX - PCS - Corrugated Conduit

Very flexible, heavy-duty

**PMA**

Flexible, weather resistant conduit suitable for use in external rail rolling stock applications.

**Applications:**

- External static and dynamic applications on railway vehicles
- Recommended for applications on the roof, between the carriages and on the bogies of railway vehicles

Features & Benefits:

- Excellent mechanical characteristics, also under extreme climatic conditions (low temperature and low humidity)
- Excellent flexibility
- Self-extinguishing
- High fire safety specification

Materials:

- High-grade, specially formulated polyamide 12

Compatible with:

- PMAFIX Pro, PMAFIX fittings
- PMAGRIP flange
- PMA accessories

Temperature range:

- -50°C ... +95°C continuous, +150°C short-term

Conforms to:

- EN 45545-2 HL2 (R22 & R23)

Weathering resistance:

- Excellent UV resistance and weathering characteristics, particularly in black

Colour:

- Black
- Grey

Chemical properties:

- Please refer to www.pma.ch (Technical Information / Chemical Resistance)

Environmental properties:

- Free from halogens and cadmium
- RoHS and REACH compliant

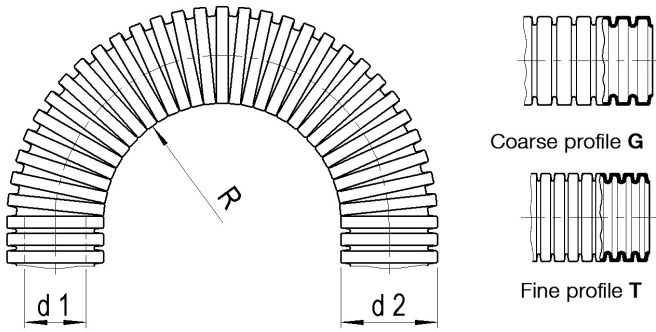
PCS-Index

min.											max.
Ductility											
Fatigue reversed bending											
Compression resistance											
Low temperature performance											
Weathering resistance											

Product selection:

Part no.		Profile	Conduit size		rec. fitting thread size		Dimensions in mm (nom.)				Weight	Packing unit
black	grey	T/G	NW	metric	PG	metric	d1	d2	stat. R	dyn. R.	kg/100 m	metre
PCST-07B	PCST-07S	T	7	10	7	M12x1.5	6.4	10.0	15	40	2.5	100
PCST-10B	PCST-10S	T	10	12	9	M12x1.5	9.6	12.8	20	50	3.1	50
PCST-12B	PCST-12S	T	12	16	11	M16x1.5	11.9	15.6	25	65	4.2	50
PCST-17B	PCST-17S	T	17	20	16	M20x1.5	16.4	21.1	35	85	7.0	50
PCSG-17B	PCSG-17S	G	17	20	16	M20x1.5	15.5	21.1	35	85	7.5	50
PCSG-23B	PCSG-23S	G	23	25	21	M25x1.5	21.6	28.4	45	110	12.0	50
PCSG-29B	PCSG-29S	G	29	32	29	M32x1.5	27.4	34.5	55	135	15.0	50
PCSG-36B	PCSG-36S	G	36	40	36	M40x1.5	36.2	42.4	65	170	19.0	30
PCSG-48B	PCSG-48S	G	48	50	48	M50x1.5	47.1	54.5	85	220	25.0	30
PCSG-56B	PCSG-56S	G	56	68	-	-	55.7	67.5	110	270	36.0	30
PCSG-70B	PCSG-70S	G	70	80	-	-	67.1	79.6	130	320	52.0	10
PCSG-95B	PCSG-95S	G	95	106	-	-	90.9	107.0	170	430	76.5	10

Our customer service dept. or local distribution partner will be pleased to help you concerning product availability and lead time



stat. R. = min. bending radius for static (fixed) installation

dyn. R. = min. bending radius for dynamic (flexible) installation

Mechanical Properties:	Value:	Test parameters:	Test method:
Impact strength	> 7.5 J	(+23°C)	PMA DO 9.21-4330
	> 12.2 J	(-18°C)	CSA C22.2 Nr. 227.3 / UL 1696
	class 3, > 2 J	(-45°C)	IEC EN 61386
	class 4, > 6 J	(-15°C)	IEC EN 61386
	class 5, > 20 J	(+23°C)	IEC EN 61386
Compression strength	> 250 N	(50 x 50 mm)	PMA DO 9.21-4320
	> 500 N	(100 x 100 mm)	PMA DO 9.21-4320
	class 2		IEC EN 61386
Resistance to fatigue	> 1'000'000 cycles		PMA DO 9.21-4420
	> 4'000'000 cycles		PMA DO 9.21-4425
	> 5'000 cycles	(-45°C)	IEC EN 61386-23
Pull-out resistance conduit - fitting series			
PMAFIX Pro	> 460 N		PMA DO 9.21-4610
PMAFIX IP68	> 430 N		PMA DO 9.21-4610
PMAFIX IP66	> 380 N		PMA DO 9.21-4610
PMAFIX Pro, PMAFIX IP66 & IP68	class 2		IEC EN 61386

Note: Testing at 23°C, 50% r.h., conduit nominal width 17, unless otherwise stated

Thermal properties:	Value:	Test parameters:	Test method:
Continuous application temperature	-50 ... +95°C		PMA DO 9.21-4510
Upper application temperature	+110°C	(20'000 h)	PMA DO 9.21-4360
Short-term	+150°C	(168 h)	PMA DO 9.21-4360
Application temperature range	-45 ... +105°C		IEC EN 61386

Fire safety properties:	Value:	Test parameters:	Test method:
Fire performance	non flame-propagating		IEC EN 61386
Fire hazard level	HL2		EN 45545-2 (R22)
Oxygen index	> 28 %		EN ISO 4589-2
Smoke density	< 300 Ds max.		EN ISO 5659-2 (25 kW/m ²)
Toxicity	< 0.9 CIT _{NLP}		NF X 70-100-1/-2: (600°C)
Fire hazard level	HL2		EN 45545-2 (R23)
Oxygen index	> 28 %		EN ISO 4589-2
Smoke density	< 600 Ds max.		EN ISO 5659-2 (25 kW/m ²)
Toxicity	< 1.8 CIT _{NLP}		NF X 70-100-1/-2: (600°C)

Note: Requirement sets (R22 & R23) apply for conduit sizes up to and including NW48

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