

TECHNICAL DATA SHEET

PMAFLEX Multilayer - XPCSF - Corrugated Conduit

Very flexible, heavy-duty

PMA® Cable Protection



Flexible, weather resistant multilayer 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 PA12/PA12

Compatible with:

- PMAFIX Pro, PMAFIX fittings and accessories

Temperature range:

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

Conforms to:

- EN 45545-2 HL3 (R23 & R23)

Weathering resistance:

- Excellent UV resistance and weathering characteristics

Colour:

- Outer layer: black

- Inner layer: orange

Chemical properties:

- Please refer to www.pma.ch

Environmental properties:

- Free from halogens and cadmium
- RoHS and REACH compliant

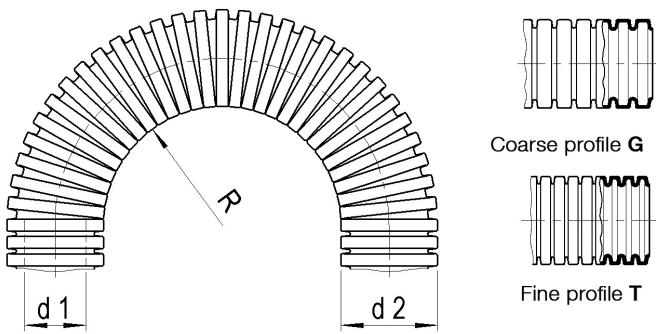
XPCSF-Index

	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 kg/100 m	Packing unit metre
		NW	metric	PG	metric	d1	d2	stat. R	dyn. R.		
black	T/G										
XPCSFT-07BO	T	7	10	7	M12x1.5	6.5	10.0	15	40	2.5	100
XPCSFT-10BO	T	10	12	9	M12x1.5	9.2	13.0	20	50	3.1	50
XPCSFT-12BO	T	12	16	11	M16x1.5	11.8	15.8	25	70	4.2	50
XPCSFG-17BO	G	17	20	16	M20x1.5	15.2	21.2	35	85	7.5	50
XPCSFG-23BO	G	23	25	21	M25x1.5	21.5	28.5	40	110	12.0	50
XPCSFG-29BO	G	29	32	29	M32x1.5	27.7	34.4	50	130	15.0	50
XPCSFG-36BO	G	36	40	36	M40x1.5	35.8	42.4	60	180	19.0	30
XPCSFG-48BO	G	48	50	48	M50x1.5	46.8	54.4	70	220	25.0	30
XPCSFG-56BO	G	56	68	-	-	56.1	67.2	130	280	36.0	30

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



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

dyn. R. = lowest recommended 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, > 2J	(-45°C)	IEC EN 61386
	class 4, > 6J	(-15°C)	IEC EN 61386
	class 5, > 20J	(+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
Reverse bending resistance	> 1'200'000 cycles		PMA DO 9.21-4420
	> 5'000'000 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	HL3		EN 45545-2 (R22)
Oxygen index	> 32 %		EN ISO 4589-2
Smoke density	< 150 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	HL3		EN 45545-2 (R23)
Oxygen index	> 32 %		EN ISO 4589-2
Smoke density	< 300 Ds max.		EN ISO 5659-2 (25 kW/m ²)
Toxicity	< 1.5 CIT _{NLP}		NF X 70-100-1/-2: (600°C)

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