

TECHNICAL DATA SHEET

PMAFLEX Multilayer - XR90 - Corrugated Conduit

Very flexible, medium-duty

PMA



Highly flexible conduit with a unique wear indication function. Especially suitable for applications with a pullback system



Applications:

- For dynamically moving conduit systems in robotics and automation industry

Features & Benefits:

- With wear indication function
- High resistance to continuous bending
- No abrupt conduit failure due to high tear propagation resistance
- High abrasion resistance
- High resistance to torsion and elongation
- Suitable for applications with a pullback system
- Long service life

Materials:

- Outer, intermediate and inner layer made from High-grade, specially formulated polyamide 12

Compatible with:

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

Temperature range:

- -40°C ... +95°C continuous, +150°C short-term

Weathering resistance:

- Very good UV resistance and weathering characteristics

Colour:

- Outer layer: black (protection layer) abrasion and UV resistant
- Intermediate layer: yellow (warning layer)
- Inner layer: red (wear limit reached) conduit should be replaced

Chemical properties:

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

Environmental properties:

- Free from halogens and cadmium
- RoHS and REACH compliant

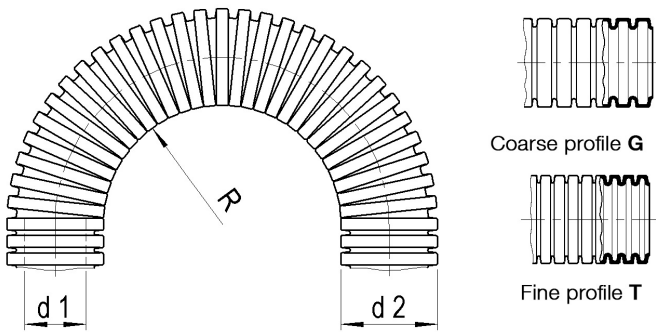
XR90-Index

	min.									max.
Ductility	[Progressive bar chart from min to max]									
Fatigue reversed bending	[Progressive bar chart from min to max]									
Compression resistance	[Progressive bar chart from min to max]									
Low temperature performance	[Progressive bar chart from min to max]									
Weathering resistance	[Progressive bar chart from min to max]									

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.		
XR90T-17BR	T	17	20	16	M20	16.2	21.1	30	85	7.5	50
XR90T-23BR	T	23	25	21	M25	22.7	28.4	40	110	12.0	50
XR90T-29BR	T	29	32	16	M32	28.6	34.5	50	135	15.0	50
XR90G-17BR	G	17	20	21	M20	15.4	21.1	35	85	7.5	50
XR90G-23BR	G	23	25	29	M25	21.4	28.4	45	110	12.0	50
XR90G-29BR	G	29	32	29	M32	27.2	34.5	55	135	15.0	50
XR90G-36BR	G	36	40	36	M40	35.9	42.4	65	170	19.0	30
XR90G-48BR	G	48	50	48	M50	47.0	54.5	85	220	25.0	30
XR90G-56BR	G	56	68	-	-	56.7	67.5	110	270	33.0	30
XR90G-70BR	G	70	80	-	-	67.8	79.6	130	320	46.0	30
XR90G-95BR	G	95	106	-	-	92.0	107.0	170	430	66.0	30

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	>3 J	(+23°C)	PMA DO 9.21-4330
	> 12.2 J	(-18°C)	CSA C22.2 Nr. 227.3 / UL 1696
Compression strength	> 230 N	(50 x 50 mm)	PMA DO 9.21-4320
	> 520 N	(100 x 100 mm)	PMA DO 9.21-4320
Resistance to fatigue	> 4'000'000 cycles		PMA DO 9.21-4420
	> 10'000'000 cycles		PMA DO 9.21-4425
Pull-out resistance conduit - fitting series			
PMAFIX Pro	> 350 N		PMA DO 9.21-4610
PMAFIX IP68	> 300 N		PMA DO 9.21-4610
PMAFIX IP66	> 280 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	-40 ... +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

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