

Conduit very flexible, medium-duty

PCL

PMAFLEX



application

- in machine building, installation and vehicle building applications

material

- high-grade, specially formulated polyamide 6

characteristics

- very good flexibility
- good mechanical strength at low temperatures and dry conditions
- self-extinguishing
- free from halogens and cadmium

temperature range

–50°C ... +105°C continuous, +160°C short-term

specifications

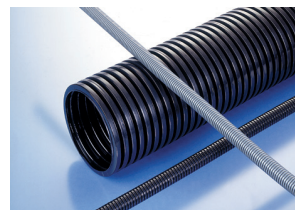
UL 1696 / CSA C22.2 No. 227.3-05
(UL file E 80294)

compatible with

PMAFIX^{Pro}, PMAFIX, PMA Smart Line, PMAGRIP

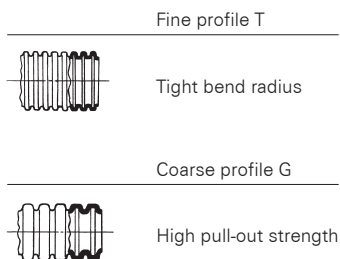
colour

black, grey

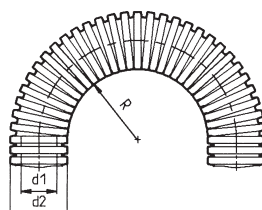


order no.			conduit size		rec. fitting thread		dimensions in mm (nom.)			weight	packing unit
black		grey	NW	metr.	metric	PG	d1	d2	stat. R.	kg/100 m	metre
	T/PCLT-07B	T/PCLT-07S	07	10	M12x1.5	07	6.2	10.0	15	2.5	50
	T/PCLT-10B	T/PCLT-10S	10	12	M12x1.5	09	9.6	13.0	20	3.1	50
	T/PCLT-12B	T/PCLT-12S	12	16	M16x1.5	11	12.0	15.8	30	4.2	50
	T/PCLT-17B	T/PCLT-17S	17	20	M20x1.5	16	16.2	21.2	40	5.7	50
	T/PCLT-23B	T/PCLT-23S	23	25	M25x1.5	21	22.6	28.5	45	10.9	50
	T/PCLT-29B	T/PCLT-29S	29	32	M32x1.5	29	29.0	34.5	55	14.7	50
	T/PCLT-36B	T/PCLT-36S	36	40	M40x1.5	36	36.5	42.5	60	17.6	30
	T/PCLT-48B	T/PCLT-48S	48	50	M50x1.5	48	47.5	54.5	70	25.1	30
	T/PCLG-17B	T/PCLG-17S	17	20	M20x1.5	16	15.3	21.2	40	6.3	50
	T/PCLG-23B	T/PCLG-23S	23	25	M25x1.5	21	21.9	28.5	45	10.9	50
	T/PCLG-29B	T/PCLG-29S	29	32	M32x1.5	29	27.6	34.5	55	14.7	50
	T/PCLG-36B	T/PCLG-36S	36	40	M40x1.5	36	36.0	42.5	60	17.6	30
	T/PCLG-48B	T/PCLG-48S	48	50	M50x1.5	48	47.0	54.5	70	25.1	30
	T/PCLG-56B	T/PCLG-56S	56	68	-	-	56.3	67.2	130	33.0	30
	T/PCLG-70B	T/PCLG-70S	70	80	-	-	67.5	80.0	160	46.0	10
	T/PCLG-95B	T/PCLG-95S	95	106	-	-	91.5	106.0	210	66.0	10
	T/PCLG-125B	T/PCLG-125S	125	146	-	-	126.5	146.5	450	102.5	6

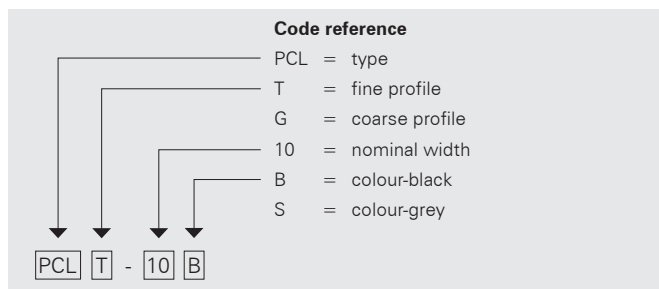
Our customer service dept. or local distribution partner will be pleased to help you concerning product availability and lead time



Dimensions



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



PCL-Index

Material	ductility	fatigue / reversed bending	pressure resistance	cold temperature performance	weather resistance
Aluminum	0.8	0.6	0.4	0.9	0.7
Carbon Fiber	0.9	0.7	0.5	0.8	0.8
Composite	0.7	0.5	0.3	0.6	0.6
Fiberglass	0.6	0.4	0.2	0.5	0.5
Kevlar	0.8	0.6	0.4	0.7	0.7
Steel	0.5	0.3	0.1	0.4	0.4
Titanium	0.9	0.7	0.5	0.8	0.8
Unlabeled	0.6	0.4	0.3	0.5	0.5

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properties		unit	value	test method according to
Mechanical properties				
Impact strength	(+23 °C)	J	> 6	PMA DO 9.21-4330
	(−18 °C)	J	> 12.2	UL 1696 / CSA C22.2 Nr. 227.3
	(−45 °C)		class 3 (> 2 J)	IEC EN 61386
	(−15 °C)		class 4 (> 6 J)	IEC EN 61386
	(+23 °C)		class 5 (> 20 J)	IEC EN 61386
Compression strength		N	> 150 (50 x 50 mm)	PMA DO 9.21-4320
		N	> 300 (100 x 100 mm) class 1	PMA DO 9.21-4320 IEC EN 61386
Reverse bending stresses	(−45 °C)	cycles	> 250'000	PMA DO 9.21-4420
		cycles	> 750'000 class 4 (flexible)	PMA DO 9.21-4425 IEC EN 61386
Pull-out resistance conduit/PMAFIX: Connector type IP68		N	> 250 class 2	PMA DO 9.21-4610 IEC EN 61386
Testing at 23°C, 50% r.h., conduit nominal width 17, unless otherwise stated				
Thermal properties				
Continuous application temperature	°C		−50 ... +105	PMA DO 9.21-4510
Upper application temperature	°C		+120 20'000 h	PMA DO 9.21-4360
Short-term	°C		+160 168 h	PMA DO 9.21-4360
Application temperature range	°C		−18 ... +105	UL 1696 / CSA C22.2 Nr. 227.3
Application temperature range	°C		−45 ... +105 (class 5, 3)	IEC EN 61386
Temperature change characteristics: Cold-warm shock test			Kat. A excellent	PMA DO 9.21-4370
Fire safety characteristics				
Fire performance			non flame-propagating	IEC EN 61386
Glowing wire flammability index		°C	850	EN 60695-2-10
Fire performance			V2	UL 94
Fire performance			compliant	UL 224

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properties	unit	value	test method according to
Weathering resistance			
Weathering (UV/humidity) for black colour		excellent	
Chemical properties			
Please refer to catalogue PMAFIX/PMAFLEX or www.pma.ch			
Environmental properties			
RoHS and REACH compliant Free from halogens		yes yes	DIN 53474
Application approvals/releases			
CSA Underwriters Laboratories SEV Bureau Veritas Lloyd's Register Det Norske Veritas ABS		CSA C22.2 Nr. 227.3 RU recognised comp. / UL 1696 CE (LWD) type approval type approval type approval type approval	certification authority certification authority accredited laboratory classification authority classification authority classification authority classification authority
Content of delivery			
Conduit			

In addition to the national and international standards which consider mainly material properties and general product performance, PMA applies its own internally developed standards when assessing the system suitability of cable protection products. The PMA standards are based on 30 years experience and allow a better assessment of whether a product is practically appropriate for a specific application.

The specifications and instructions for our customers in this document reflect the product engineering level at the time of manufacturing. Please consider the valid data sheet release at a time. For questions please contact the PMA customer service. ABB Switzerland Ltd, PMA Cable Protection accepts no liability for damages resulting from unprofessional installation or application or misuse for a purpose. This disclaimer also includes damages to third parties. It is the customer's responsibility to check the delivered products and immediately notify ABB Switzerland Ltd, PMA Cable Protection of detected faults. It is also the customer's responsibility to test the delivered product on its applicability for the intended purpose. ABB Switzerland Ltd, PMA Cable Protection will accept no liability or responsibility for their products if a product or a PMA system is combined or used together with third-party products, i.e. products from other companies than ABB Switzerland Ltd, PMA Cable Protection. Jurisdiction in all legal disputes concerning product liability have the courts of the canton of Zurich/Switzerland. Swiss law applies.

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