

MERIFLEX



PE PIPES AND FITTINGS  
FOR PRESSURE APPLICATIONS

[www.plassim.co.il](http://www.plassim.co.il)



## APPLICATIONS

Plassim's PE pressure pipes are manufactured only from the finest quality materials. Resins are purchased from leading suppliers in Europe and the U.S.A. and meet the most stringent requirements.

For potable water distribution, irrigation, sewage under pressure, transport of gaseous fuels and industrial applications as well as pipeline rehabilitation (slip lining and pipe bursting).

## CHARACTERISTICS

- Weldability - using simple butt-fusion or electro-fusion techniques giving a continuous leak-free system
- Coils or drums in long lengths reducing joints
- Welding out of the trench allowing narrow trenching
- Contouring along crooked and uneven trenches
- Outstanding resistance to subsidence and earthquake
- Low temperature resistance - pipes remain intact and undamaged even after freezing
- Excellent corrosion resistance
- Excellent chemical resistance
- Excellent abrasion resistance
- High ring stiffness
- Low depreciation and maintenance costs (life-span of 100 years - DIN 8074)
- A wide range of fittings and accessories available

## STANDARDS

PE pressure pipes are manufactured according to the following standards:  
Water supply: Israeli Standard 499, DIN 8074, EN 12201, ISO 4427  
Drainage and sewerage: EN 13244  
Gas supply: Israeli Standard 4018, EN 1555, ISO 4437

## SPECIFICATION

Colour: Water supply and sewerage: Black (Other colours and coloured stripes available on application)

Lengths: Available in coils, on drums or in various pipe lengths

## MATERIALS

Characteristic	Standard	Unit	PE80	PE80-909	PE100
Type			HDPE	MDPE	HDPE
Design Stress (20°, 50 years)	ISO 9080	MPa	6.3	7.44	8.0
Density (23°C)	ISO 1183	kg/m <sup>3</sup>	949	948	959
MFR (5kg, 190°C)	ISO 1133	g/10 min	0.85	0.6	0.45
Carbon black content	ISO 6964	%	2-2.5	2-2.5	2-2.5
Tensile strength at yield	ISO 6259	N/mm <sup>2</sup>	20	18	25
Elongation	ISO 6259	%	>600	>600	>600
Modulus of elasticity	ISO 527	N/mm <sup>2</sup>	800	550	1200
Vicat softening temp. (1kg)	ISO 306	°C	121	118	127
Oxidation induction time	ISO 11357-6	min	>20	>20	>20

Meriflex PE pipes can be joined by butt-fusion, electro-fusion or with mechanical fittings. Plassim offers a wide range of fittings for all three technologies.



### Butt-Fusion

This method fuses the pipe ends together creating a continuous, leak-free polyethylene system. Because the pipe ends are melted, new bonds are created between the molecules creating joints as strong as the pipe itself. Special welding equipment is used to clean and heat the pipe ends and to bring them together under pressure to form the weld. This is the preferred method for pipes with diameters over 75mm



### Electro-Fusion:

Like the butt-fusion method, the pipe and fitting are fused together by heating. This method relies on an electro-weld fitting to fuse the pipe. The fitting incorporates an electrical heating element which, when energised with a controlled generator, melts the fitting and pipe in the area of the element and fuses them together. Electro-fusion fittings are available for diameters up to 500mm.



### Mechanical Joint Compression Fittings:

This is a mechanical method for joining pipes and needs no special equipment. The fitting relies on an elastomeric seal, which is compressed between the fitting and the pipe, to form the joint. see the Plassim Fittings catalogue for our full range. For diameters up to 110mm.

PIPES

MERIFLEX 80

Meriflex 80 pipes are manufactured from PE 80 High Density Polyethylene resin.

MERIFLEX 909

Meriflex 909 pipes are manufactured from PE80 Borealis 0909 Medium Density Polyethylene resin suitable for raised temperature applications (50 years at 60°C). The pipes have raised resistance to impact and abrasion together with greater flexibility.

MERIFLEX 100

Meriflex 100 pipes are manufactured from finest quality PE100 High Density Polyethylene resins and meet the most stringent requirements of local and international standards.

WALL THICKNESS TABLE FOR PE80 AND PE 100 PIPES

	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11	SDR 9
PE80	PN4	PN6	PN8	PN10	PN12.5	PN16
PE100	PN6	PN8	PN10	PN12.5	PN16	PN20
OD (mm)	Wall Thickness (mm)					
16	-	-	-	-	-	2.0
20	-	-	-	-	2.0	2.3
25	-	-	-	2.0	2.3	3.0
32	-	-	2.0	2.4	3.0	3.6
40	-	2.0	2.4	3.0	3.7	4.5
50	2.0	2.4	3.0	3.7	4.6	5.6
63	2.5	3.0	3.8	4.6	5.8	7.1
75	2.9	3.6	4.5	5.6	6.8	8.4
90	3.5	4.3	5.4	6.7	8.2	10.1
110	4.2	5.3	6.6	8.1	10.0	12.3
125	4.8	6.0	7.4	9.2	11.4	14.0
140	5.4	6.7	8.3	10.3	12.7	15.7
160	6.2	7.7	9.5	11.8	14.6	17.9
180	6.9	8.6	10.7	13.3	16.4	20.1
200	7.7	9.6	11.9	14.7	18.2	22.4
225	8.6	10.8	13.4	16.6	20.5	25.2
250	9.6	11.9	14.8	18.4	22.7	27.9
280	10.7	13.4	16.6	20.6	25.4	31.3
315	12.1	15.0	18.7	23.2	28.6	35.2
355	13.6	16.9	21.1	26.1	32.2	39.7
400	15.3	19.1	23.7	29.4	36.3	44.7
450	17.2	21.5	26.7	33.1	40.9	50.3
500	19.1	23.9	29.7	36.8	45.4	55.8
560	21.4	26.7	33.2	41.2	50.8	-
630	24.1	30.0	37.4	46.3	57.2	-
710	27.2	33.9	42.1	52.2	-	-
800	30.6	38.1	47.4	58.8	-	-

**SDR:** Standard dimension Ratio is the ratio of the nominal outside diameter of a pipe to it's nominal wall thickness.

**PN:** Nominal pressure corresponds to the maximum continuous operating pressure in bar which can be sustained by the pipe with water at 20°C for 50 years. This pressure is calculated using the design stress of the material. The design stress is the minimum required strength of the material divided by a service coefficient of 1.25.

**OD:** Outside Diameter

## BUTT-FUSION FITTINGS

Butt-Fusion fittings are available in PE100-SDR11/PN16 or SDR17/PN10

### REDUCER



Cat No.	OD (mm)	Cat. No.	OD (mm)
31063D7040	63x40	31225D7200	225x200
31063D7050	63x50	31250D7200	250x200
31075D7050	75x50	31250D7225	250x225
31075D7063	75x63	31280D7200	280x200
31090D7063	90x63	31280D7225	280x225
31090D7075	90x75	31280D7250	280x250
31110D7063	110x63	31315D7200	315x200
31110D7075	110x75	31315D7225	315x225
31110D7090	110x90	31315D7250	315x250
31125D7090	125x90	31315D7280	315x280
31125D7110	125x110	31355D7250	355x250
31140D7110	140x110	31355D7280	355x280
31160D7090	160x90	31355D7315	355x315
31160D7110	160x110	31400D7280	400x280
31160D7140	160x140	31400D7315	400x315
31180D7160	180x160	31400D7355	400x355
31200D7160	200x160	31450D7400	450x400
31200D7180	200x180	31500D7450	500x450
31225D7160	225x160		

### 90° ELBOW



Cat No.	OD (mm)	Cat. No.	OD (mm)
31063Z7500	63	31200Z7500	200
31075Z7500	75	31225Z7500	225
31090Z7500	90	31250Z7500	250
31110Z7500	110	31280Z7500	280
31125Z7500	125	31315Z7500	315
31140Z7500	140	31355Z7500	355
31160Z7500	160	31400Z7500	400
31180Z7500	180		

### STUB END



Cat No.	OD (mm)	Cat. No.	OD (mm)
31063V7000	63	31250V7000	250
31075V7000	75	31280V7000	280
31090V7000	90	31315V7000	315
31110V7000	110	31355V7000	355
31125V7000	125	31400V7000	400
31140V7000	140	31450V7000	450
31160V7000	160	31500V7000	500
31180V7000	180	31560V5000	560
31200V7000	200	31630V5000	630
31225V7000	225	31710V5000	710

**90° TEE**



Cat No.	OD (mm)	Cat. No.	OD (mm)
31063T7500	63	31225T7500	225
31075T7500	75	31250T7500	250
31090T7500	90	31280T7500	280
31110T7500	110	31315T7500	315
31125T7500	125	31355T7500	355
31140T7500	140	31400T7500	400
31160T7500	160	31560T7500	560
31180T7500	180	31630T7500	630
31200T7500	200		

**FLANGED 90° TEE**



Cat No.	OD (mm)	Flange (in)
31110T7808	110	3"
31110T7814	110	4"
31160T7814	160	4"
31160T7816	160	6"
31200T7816	200	6"
31225T7816	225	6"
31225T7818	225	8"
31250T7818	250	8"
31280T7818	280	8"
31280T7820	280	10"
31315T7818	315	8"
31315T7820	315	10"
31315T7822	315	12"
31355T7824	355	14"
31400T7826	400	16"

**FLANGE**



ASA Flange Cat. No.	BS Flange Cat. No.	Suitable for OD (mm)	Flange (in)
53-06O0306	53-06O0106	63	2"
53-08O0308	53-08O0108	75, 90	3"
53-14O0314	53-14O0114	110, 125	4"
53-15O0315	53-15O0115	140	5"
53-16O0316	53-16O0116	160, 180	6"
53-18O0318	53-18O0118	200, 225	8"
53-20O0320	53-20O0120	250, 280	10"
53-22O0322	53-22O0122	315	12"
53-24O0324	53-24O0124	355	14"
53-26O0326	53-26O0126	400	16"
53-28O0328	53-28O0128	450	18"
53-30O0330	53-30O0130	500	20"

## REDUCING TEE



Cat No.	OD (mm)
41110D1090	110-90-110
41160D1110	160-110-160
41200D1160	200-160-200
41225D1160	225-160-225
41280D1225	280-225-280
41315D1280	315-280-315
41355D1315	355-315-355
41400D1355	400-355-400
41500D1400	500-400-500

## ELECTRO-FUSION FITTINGS

### STRAIGHT COUPLER



Cat No.	OD (mm)	Cat. No.	OD (mm)
41020M0020	20	41160M0160	160
41025M0025	25	41180M0180	180
41032M0032	32	41200M0200	200
41040M0040	40	41225M0225	225
41050M0050	50	41250M0250	250
41063M0063	63	41280M0280	280
41075M0075	75	41315M0315	315
41090M0090	90	41355M0355	355
41110M0110	110	41400M0400	400
41125M0125	125	41450M0450	450
41140M0140	140	41500M0500	500

### REDUCER SOCKET



Cat No.	OD (mm)	Cat. No.	OD (mm)
41025D0020	25x20	41063D0032	63X32
41032D0020	32x20	41063D0040	63X40
41032D0025	32x25	41063D0050	63X50
41040D0032	40x32	41090D0063	90X63
41050D0032	50x32	41110D0090	110X90
41050D0040	50x40	41160D0110	160X110

### REDUCER-SPIGOT

WITH LONG SPIGOT



Cat No.	OD (mm)	Cat. No.	OD (mm)
41025D1020	25x20	41160D1xxx	160x90,110,125,140
41032D10xx	32x20,25	41180D1xxx	180x90,125,160
41040D10xx	40x20,25,32	41200D1xxx	200x160,180
41050D10xx	50x25,32,40	41225D1xxx	225x140,160,180
41063D10xx	63x32,40,50	41250D1xxx	250x160,180,200,225
41075D10xx	74x40,50,63	41280D1xxx	280x200,225,250
41090D10xx	90x50,63,75	41315D1xxx	315x225,225,280
41110D10xx	110x63,75,90	41355D1xxx	355x250,280,315
41125D10xx	125x63,75,90,110	41400D1xxx	400x280x315x355
41140D10xx	140x90,110,125		

xx=varying diameters

**ELBOW**



45° Socket Cat No.	90° Socket Cat. No.	OD (mm)	90° Spigot Cat No.	OD (mm)
41020Z0300	41020Z0500	20	41200Z1500	200
41025Z0300	41025Z0500	25	41225Z1500	225
41032Z0300	41032Z0500	32	41250Z1500	250
41040Z0300	41040Z0500	40	41280Z1500	280
41050Z0300	41050Z0500	50	41315Z1500	315
41063Z0300	41063Z0500	63		
41075Z0300	41075Z0500	75		
41090Z0300	41090Z0500	90		
41110Z0300	41110Z0500	110		
41125Z0300	41125Z0500	125		
41160Z0300	41160Z0500	160		
41180Z0300	41180Z0500	180		

**EQUAL TEE**



Tee Socket Cat No.	OD (mm)	Tee Spigot Cat No.	OD (mm)
41020T0500	20	41200T1200	200
41025T0500	25	41225T1225	225
41032T0500	32	41250T1250	250
41040T0500	40	41280T1280	280
41050T0500	50	41315T1315	315
41063T0500	63	41355T1355	355
41075T0500	75	41400T1400	400
41090T0500	90	41450T1450	450
41110T0500	110		
41125T0500	125		
41160T0500	160		
41180T0500	180		

**FLANGE ADAPTOR**

WITH LONG SPIGOT



Cat No.	OD (mm)	Cat. No.	OD (mm)
41020V1000	20	41160V1000	160
41025V1000	25	41180V1000	180
41032V1000	32	41200V1000	200
41040V1000	40	41225V1000	225
41050V1000	50	41250V1000	250
41063V1000	63	41280V1000	280
41075V1000	75	41315V1000	315
41090V1000	90	41355V1000	355
41110V1000	110	41400V1000	400
41125V1000	125	41450V1000	450
41140V1000	140		

**SADDLE**



Cat No.	OD (mm)	Cat. No.	OD (mm)
41063R0063	63x63	41110R0090	110x90
41075R0032	75x32	41125R0063	125x63
41075R0063	75x63	41140R0063	140x63
41090R0032	90x32	41160R0050	160x50
41090R0050	90x50	41160R0063	160x63
41090R0063	90x63	41180R0063	180x63
41110R0032	110x32	41200R0063	200x63
41110R0040	110x40	41200R0090	200x90
41110R0050	110x50	41225R0063	225x63
41110R0063	110x63	41225R0090	225x90

**TAPPING TEE**



Cat No.	Pipe x Outlet OD (mm)	Cat. No.	Pipe x Outlet OD (mm)
41040S00xx	40x20,32	41110S00xx	110x32,40,50,63
41050S00xx	50x20,32	41125S00xx	125x32,40,50,63
41063S00xx	63x20,32,40,50,63	41140S00xx	140x32,40,50,63
41075S00xx	75x32,40,50,63	41160S00xx	160x32,40,50,63
41090S00xx	90x32,40,50,63	41180S00xx	180x32,40,50,63

xx=varying diameters

**END CAP**



Cat No.	OD (mm)	Cat. No.	OD (mm)
40020P0020	20	40110P0110	110
40025P0025	25	40125P0125	125
40032P0032	32	40140P0140	140
40040P0040	40	40160P0160	160
40050P0050	50	40180P0180	180
40063P0063	63	40200P0200	200
40075P0075	75	40225P0225	225
40090P0090	90	40250P0250	250

**COMPRESSION FITTINGS**

A comprehensive selection of compression fittings is available. Please refer to the Plassim Fittings Catalogue for our complete range including:

- Plassim Compression fittings  
16-63mm rated 16 bar  
75-110mm rated 10 bar
- Push-fit communication duct couplers  
Comfit, 32-50mm
- Universal couplers for joining PE pipes to other pipe materials  
Unifit, 15 to 35mm rated 16 bar
- Irrigation and garden fittings  
Meital, 16 to 25mm rated 4 bar
- General purpose and industrial PVC fittings  
Nir, 16 to 25mm rated 6 bar
- Clamp saddles  
2, 4 and 6 bolt saddles, 25 to 160mm