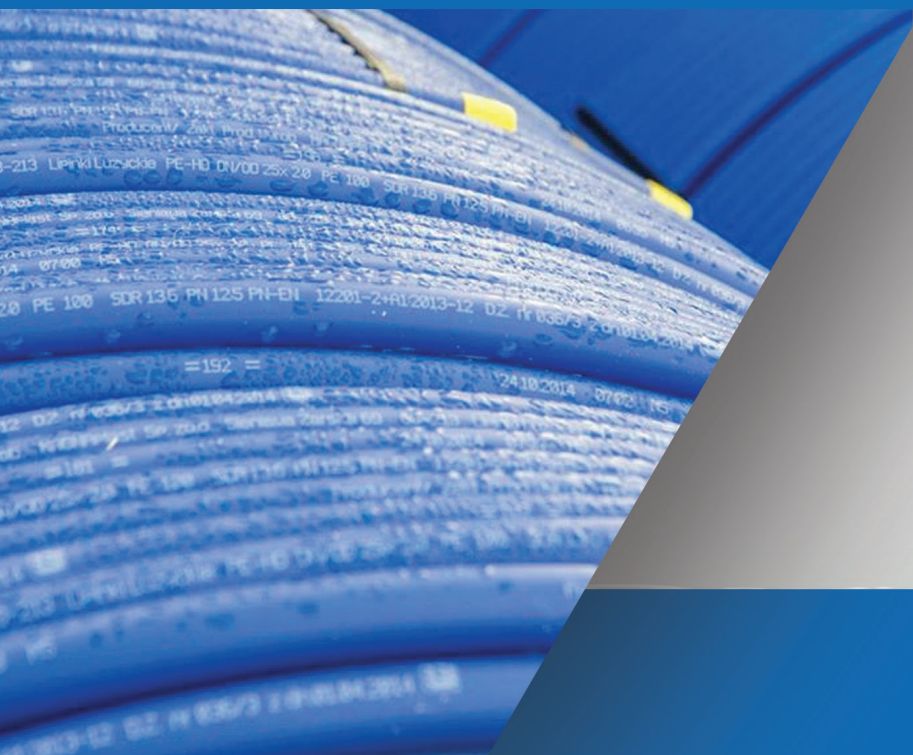


# magnoplast

## POLYETHYLENE SYSTEMS



## LEAFLET

# PE-HD 100 / PE-HD 100-RC

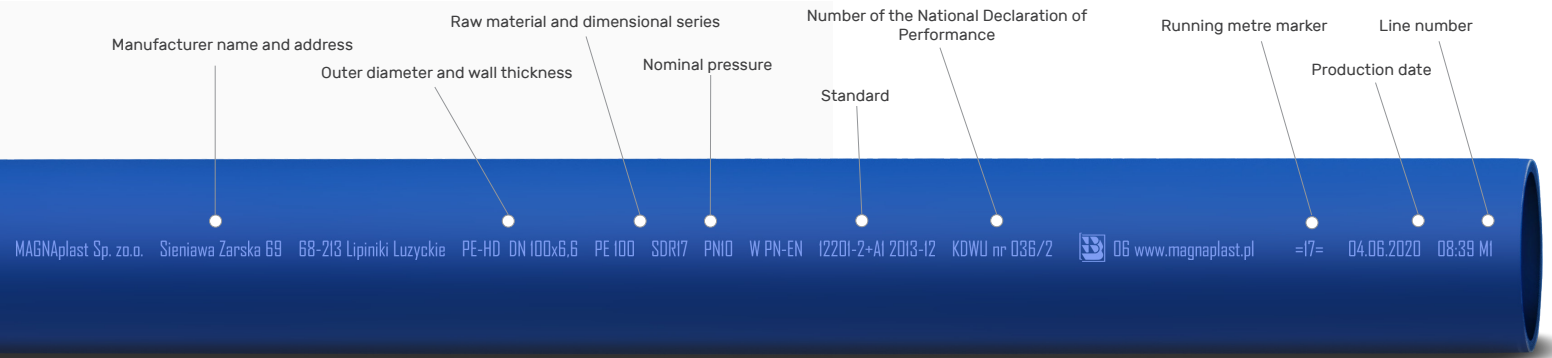
# POLYETHYLENE SYSTEMS PE 100/PE 100RC

The polyethylene pipes offered by Magnaplast are intended for the construction of underground water supply systems distributing cold potable water. All pipes are manufactured in accordance with PN-EN 12201-2 and have the necessary certificates and hygienic approvals..

The raw material used for manufacturing is a high-density polyethylene (PE-HD 100), whose properties allow it to also be used for the construction of heat pumps. All pipes are available in blue, and in the case of PE-HD 100-RC pipes they are additionally marked with azure stripes.

## LABELLING

The pipes are marked every 1 running metre as follows:



## CONNECTION METHODS

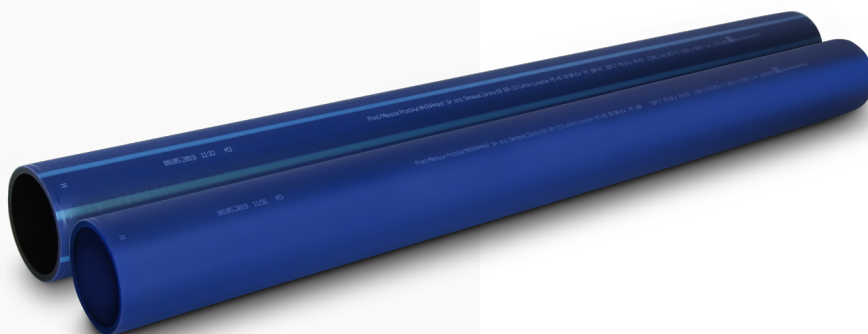
Pipe connections can be made by:

- butt welding,
- welding with electrofusion fittings,
- mechanical connections using compression fittings.

## TRANSPORT AND STORAGE

Transport and storage of pipes should be done in accordance with the following guidelines:

- pipes should be stored on smooth surfaces without sharp/protruding elements,
- exercise extreme caution when moving pipes in conditions of low ambient temperature (due to a decrease in the resistance of plastic pipes to mechanical impacts),
- maximum height of pipe storage on pallets (straight sections) should not exceed 3 m, or 1.5 m in the case of pipes in coils,
- pipes should be protected against direct impact of sources of heat, lubricants, oils, paints,
- the storage period for polyethylene pipes exposed to direct sunlight should not exceed one year.



## TABLE OF PE 100 PRODUCTS

Product name	Product code	Dimensions	Unit of measure	Colour	Coil width (cm)	Coil height (cm)	Running metres per pallet
PE 100 pipes SDR 17 PN 10	45523	32 x 2,0	200 mb.		24	140	800 mb.
	45533	40 x 2,4	200 mb.		30	159	800 mb.
	45343	50 x 3,0	200 mb.		26	176	400 mb.
	45353	63 x 3,8	100 mb.		40	176	300 mb.
	45363	75 x 4,5	100 mb.		40	235	300 mb.
	45373	90 x 5,4	100 mb.		40	240	300 mb.
	45092	90 X 5,4	12 mb.		X	X	168 mb.
	45283	110 x 6,6	50 mb.		55	290	50 mb.
	45083	110 x 6,6	12 mb.		X	X	168 mb.
	445102	125 x 7,4	12 mb.		X	X	168 mb.
445122	160 x 9,5	12 mb.		X	X	96 mb.	
	46513	25 x 2,0	200 mb.		22	118	1000 mb.
	46523	32 x 2,4	200 mb.		25	140	800 mb.
	46533	40 x 3,0	200 mb.		30	159	800 mb.
	46343	50 x 3,7	100 mb.		26	176	400 mb.
	46353	63 x 4,7	100 mb.		40	176	300 mb.
PE 100 pipes SDR 11 PN 16	47503	20 x 2,0	200 mb.		27	87	800 mb.
	47513	25 x 2,3	200 mb.		22	118	1000 mb.
	47523	32 x 3,0	200 mb.		24	140	800 mb.
	47533	40 x 3,7	200 mb.		30	159	800 mb.
	47343	50 x 4,6	100 mb.		26	176	400 mb.
	47353	63 x 5,8	100 mb.		40	176	300 mb.

## TABLE OF PE 100 RC PRODUCTS

Product name	Product no.	Dimensions	Unit of measure	Colour	Coil width (cm)	Coil height (cm)	Running metres per pallet
PE100 RC pipes SDR 17 PN 10	45525	32 x 2,0	200 mb.		24	140	800 mb.
	45535	40 x 2,4	200 mb.		30	159	800 mb.
	45345	50 x 3,0	200 mb.		26	176	400 mb.
	45355	63 x 3,8	100 mb.		40	176	300 mb.
	45365	75 x 4,5	100 mb.		40	235	300 mb.
	45375	90 x 5,4	100 mb.		40	240	300 mb.
	445175	90 X 5,4	12 mb.		X	X	168 mb.
	45285	110 x 6,6	50 mb.		55	290	50 mb.
	445185	110 x 6,6	12 mb.		X	X	168 mb.
	445125	160 x 9,5	12 mb.		X	X	96 mb.
PE100 RC pipes SDR 11 PN 16	47525	32 x 3,0	200 mb.		24	140	800 mb.
	47535	40 x 3,7	200 mb.		30	159	800 mb.
	47345	50 x 4,6	200 mb.		26	176	400 mb.
	47355	63 x 5,8	100 mb.		40	176	300 mb.
	47365	75 x 6,8	100 mb.		40	235	300 mb.
	47275	90 x 8,2	100 mb.		40	240	300 mb.
	447175	90 X 8,2	12 mb.		X	X	168 mb.
	47285	110 x 10,0	50 mb.		55	290	50 mb.
	447185	110 x 10,0	12 mb.		X	X	168 mb.
447125	160 x 14,6	12 mb.		X	X	96 mb.	

## PE-HD 100-RC PIPES

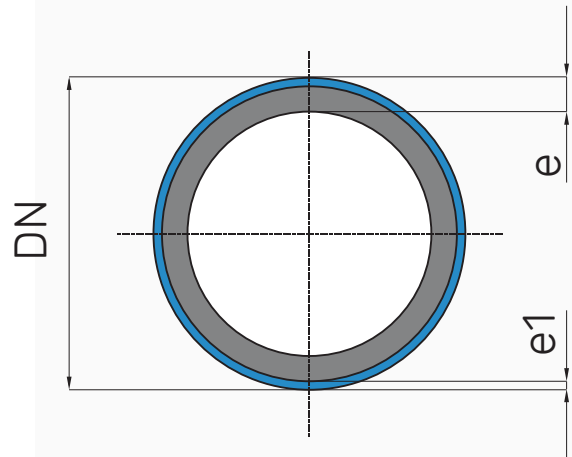
PE-HD 100 pipes are also available in the RC variant, which is an extension of advanced high-density polyethylene production technology. This material was modified in the manufacturing process, so as to be resistant to cracking (RC).

This feature, which distinguishes it from **PE-HD 100** material, has not only given new possibilities for the construction of underground pressure systems, but has also effectively reduced construction costs and extended the service life of pipelines.

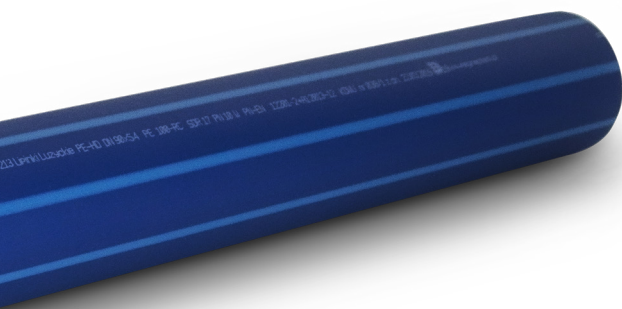
**PE-HD 100-RC** pipes manufactured by Magnaplast are available in two-layer versions. This makes the product even more resistant to microcracks and makes it possible to detect possible damage during installation.

### PE-HD 100-RC PIPES – WALL STRUCTURE AND THICKNESS

SDR 17 PN 10			SDR 11 PN 16		
DN/OD	e [mm]	e1 [mm]	DN/OD	e [mm]	e1 [mm]
32	2,0	0,4	32	3,0	0,6
40	2,4	0,4	40	3,7	0,6
50	3,0	0,6	50	4,6	1,0
63	3,8	0,6	63	5,8	1,2
75	4,5	1,0	75	6,8	1,5
90	5,4	1,2	90	8,2	1,5
110	6,6	1,5	110	10,0	2,0
160	9,5	2,0	160	14,6	2,3



## TECHNOLOGIES FOR LAYING PE-HD 100-RC PIPES



Technologies for laying PE-HD 100-RC pipes:

**1. Trenchless methods:**

- pneumatic jacking (punch), the so-called impact moling,
- guided boring,
- directional drilling,
- micro-tunnelling,
- pipe jacking.

**2. Narrow trench method** (ploughing and milling)

**3. Trench method** without sand bed, on a natural substrate with a backfill; stone size up to 63 mm.

**4. Pipe renovation** – relining.

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