



## PE100

### 1 General

PE 100 pressure pipe complying with DS/EN 12201 – approved for drinking water supply and drainage and sewerage under pressure.

### 2 Raw Materials

Only INSTA-CERT approved PE100 raw materials are used.  
INSTA-CERT approved raw materials comply with DS/EN 12201.

### 3 Dimensions

'SIZE'	SDR	MEAN OUTSIDE DIAM			I.D. nom	WALL THICKNESS			MASS nom g/m
		min	NOM	max		min	NOM	max	
20- 800 mm	11	Comply to DS/EN 12.201 (see appendix)							
	17								
	26								

↳ 'SDR' is the standard dimension ratio (OD / wall).  
Lower SDRs indicate heavy-duty sizes.

3.1 The pipe shall have dimensions (mm) as defined in the standard.

3.2 The weight (mass) of the pipe shall be nominally calculated for 1 m pipe:

$$(OD - wt) * wt * \pi * density$$

where:

OD (outside diameter) and wt (wall thickness) is in mm, and density for PE 100 is 0.96 g/cm<sup>3</sup>

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## 4 Pipe Performance

### 4.1 Pipe ovality

Below $\varnothing$ 250	Comply to DS/EN 12201
$\varnothing$ 280 – 315mm	$\leq 5$ mm
$\varnothing$ 355mm	$\leq 6$ mm
$\varnothing$ 400mm	$\leq 7$ mm
$\varnothing$ 450 – 560mm	$\leq 8$ mm
$\varnothing$ 630 – 710 mm	$\leq 9$ mm
$\varnothing$ 800 mm	$\leq 10$ mm

### 4.2 Physical properties

Test	Standard	Result
Hydrostatic test 165 h	EN ISO 1167	Ok
Impact test 5 kg	DS EN 61386	Ok
Elongation of break	EN ISO 6259	>350%
Yield stress	EN ISO 6259	>22 MPa
Compression	DS EN 61386	>750 N
Longitudinal reversion	EN ISO 2505	<3%
MFR (190°C/5kg) Deviation raw mat. to pipe: $\leq 20\%$	EN ISO 1133	Ok
OIT $\geq 20$ min	ISO 11357	Ok

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### 4.3 Installation tension recommendation

SDR 11		
Ø [mm]	Max install tension [kN]	Max install tension [kg]
20	1,2	126,9
25	1,8	184,1
32	3,0	306,8
40	4,6	473,6
50	7,2	736,4
63	11,5	1.169,9
75	16,0	1.635,3
90	23,2	2.365,3
110	34,6	3.526,3
125	44,8	4.566,7
140	55,9	5.701,0
160	73,4	7.485,7
180	92,7	9.461,1
200	114,3	11.667,6
225	144,9	14.783,0
250	178,3	18.194,6
280	223,5	22.803,9
315	283,1	28.883,9
355	359,2	36.652,7
400	456,2	46.555,0
450	578,2	59.002,3
500	713,2	72.778,3
560	893,9	91.215,5
630	1.132,2	115.535,5
710	1.438,8	146.815,7
800	1.825,0	186.220,0

SDR 17		
Ø [mm]	Max install tension [kN]	Max trækraft PE100 [kg]
32	2,1	211,6
40	3,1	318,2
50	4,9	497,2
63	7,8	793,3
75	11,0	1.118,7
90	15,8	1.610,9
110	23,6	2.406,5
125	30,1	3.068,7
140	37,8	3.854,6
160	49,4	5.041,7
180	62,6	6.387,9
200	77,4	7.893,2
225	98,0	9.998,5
250	120,3	12.274,8
280	151,1	15.418,4
315	191,5	19.538,4
355	243,5	24.843,6
400	308,2	31.448,4
450	390,6	39.854,4
500	482,7	49.254,7
560	604,4	61.673,7
630	765,9	78.153,7
710	971,7	99.154,0
800	1.232,8	125.793,7

SDR 26		
Ø [mm]	Max install tension [kN]	Max trækraft PE100 [kg]
50	3,3	338,5
63	5,2	533,3
75	7,2	737,3
90	10,5	1.067,6
110	15,4	1.566,9
125	19,9	2.034,5
140	25,1	2.563,0
160	33,0	3.362,5
180	41,3	4.211,8
200	51,2	5.221,4
225	64,3	6.562,5
250	79,8	8.138,1
280	99,6	10.161,0
315	126,7	12.924,1
355	160,5	16.372,6
400	203,4	20.755,4
450	257,3	26.250,2
500	317,4	32.389,5
560	398,3	40.644,0
630	504,6	51.491,4
710	641,8	65.490,6
800	813,6	83.021,4

**4 Exposure:** The pipes shall be UV stabilised to withstand daylight exposure period of at least 12 months. However, for optimum performance, the pipe is best stored for no longer than 6 months if outdoors.

**Marking:** Standard number, manufactures name, dimensions, SDR series, intended use W, P or W/P, material and designation e.g. PE100, pressure rating in bars, manufactures information e.g. 2042

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