

Technical Data

Piping

The enclosed pages are taken from the Installation Systems Catalogue 2015 for additional information please visit the technical library at www.hilti.co.uk or call our Technical Advisory Service on 0161 886 1144

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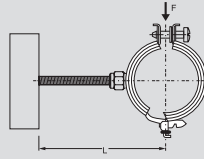
Piping: Bulk, weights, mounting distances

Waste water pipes, pressure pipes							Mapress-pipes, composite pipes								
DN	Pipe outside diameter	Wall thickness	Pipe weights ¹⁾				Max. supporting distance	DN	Pipe outside diameter	Wall thickness	Pipe weights ¹⁾				Max. supporting distance
			Empty	Water-filled	Water-filled + insulation						Empty	Water-filled	Water-filled + insulation		
NW	mm	mm	kg/m	kg/m	kg/m	m	NW	mm	mm	kg/m	kg/m	kg/m	m		
Waste water pipes cast iron, DIN EN 877 / DIN 19 522							Geberit Mapress stainless steel system pipe								
40	48	3.0	3.1	4.5			12	15	1.00	0.35	0.48	0.66	1.25		
50	58	3.5	4.3	6.4		1.5-2.0	15	18	1.00	0.43	0.63	0.82	1.50		
70	78	3.5	5.9	9.9		is depending on the	20	22	1.20	0.63	0.93	1.14	2.00		
80	83	3.5	6.3	10.8		manufacturer;	25	28	1.20	0.81	1.32	1.76	2.25		
100	110	3.5	8.4	16.7		every pipe length	32	35	1.50	1.26	2.06	2.55	2.75		
125	135	4.0	11.8	24.5		should be	40	42	1.50	1.52	2.72	3.54	3.00		
150	160	4.0	14.1	32.2		supported in minimum	50	54	1.50	1.97	4.02	5.74	3.50		
200	210	5.0	23.1	54.5		2 times.	65	76.1	2.00	3.72	7.80	10.94	4.25		
250	274	5.5	33.3	87.6		Additionally for every	80	88.9	2.00	4.36	10.02	14.77	4.75		
300	326	6.0	43.2	120.7		shape piece.	100	108	2.00	5.31	13.81	19.04	5.00		
400	429	6.3	60.0	196.2			Geberit Mapress C-steel system pipe								
500	532	7.0	83.3	294.1			10	12	1.20	0.32	0.39	0.55	1.50		
600	635	7.7	110.0	411.5			12	15	1.20	0.41	0.53	0.71	1.50		
Waste water pipe PVC-U, DIN 8062							Gerberit Mepla composite pipe								
40	50	1.8	0.4	2.09		0.5	15	18	1.20	0.50	0.69	0.88	1.50		
50	63	1.9	0.53	3.29		0.6	20	22	1.50	0.76	1.04	1.25	2.50		
70	75	2.2	0.73	4.65		0.8	25	28	1.50	0.98	1.47	1.91	2.50		
80	90	2.7	1.08	6.7		0.9	32	35	1.50	1.24	2.04	2.53	3.50		
100	110	3.2	1.57	10		1.2	40	42	1.50	1.50	2.69	3.52	3.50		
125	125	3.7	2.06	12.92		1.3	50	54	1.50	1.94	3.98	5.70	3.50		
150	160	4.7	3.35	21.16		1.8	Gerberit Unipe MLC								
-	180	5.3	4.25	26.78		2.0	16	20	2.00	0.12	0.23	0.41	1.20		
-	200	5.9	5.25	33.07		2.2	20	25	2.25	0.16	0.35	0.55	1.20		
-	225	6.6	6.61	41.84		2.3	25	32	2.50	0.24	0.55	0.78	1.20		
-	250	7.3	8.13	51.65		2.4	32	40	3.00	0.32	0.85	1.32	1.60		
-	280	8.2	10.22	64.8		2.5	40	50	3.00	0.42	0.95	1.41	2.00		
-	315	9.2	12.9	82		2.6	50	63	4.50	1.10	3.39	5.25	2.50		
Pressure pipe PP-SDR 17.6 (Simona) similar DIN 8077							Rehau RAUPEX-A pressured air/RAUPEX-K water pipe								
25	1.8	0.13	0.4			0.50	65	75	4.70	1.45	4.83	7.38	3.00		
32	1.8	0.17	0.6			0.70	16	25	2.00	0.12	0.23	0.41	1.20		
40	2.3	0.27	1			0.80	20	32	2.25	0.16	0.35	0.55	1.20		
50	2.9	0.42	2			1.00	25	40	2.50	0.24	0.55	0.78	1.20		
63	3.6	0.66	3.1			1.30	32	50	3.00	0.32	0.85	1.32	1.60		
75	4.3	0.94	4.4			1.40	40	63	4.50	1.22	3.26	5.12	2.20		
90	5.1	1.33	6.3			1.50	50	75	7.50	1.79	4.62	7.17	2.40		
110	6.3	1.99	9.4			1.60	63	90	8.50	2.55	6.73	10.15	2.40		
125	7.1	2.55	12.2			1.80	75	110	10.00	3.60	9.96	15.24	2.40		
140	8	3.2	15.3			1.90	Rehau RAUTITAN stable standard pipe without insulation								
160	9.1	4.17	20			2.00	16.2	20	2.60	0.14	0.20	0.38	1.00		
180	10.2	5.25	25.3			2.10	20	25	2.90	0.18	0.40	0.60	1.25		
200	11.4	6.5	31.2			2.20	25	32	3.70	0.22	0.50	0.73	1.50		
225	12.8	8.19	39.4			2.30	32	40	4.70	0.46	0.90	1.37	1.75		
250	14.2	10.1	48.7			2.50	40	50	6.00	0.73	1.40	1.93	2.00		
280	15.9	12.6	61			2.60	50	63	8.20	2.09	6.40	9.82	1.25		
315	17.9	16	77.2			2.80	63	75	11.00	33.09	9.50	14.78	1.40		
355	20.1	20.3	98.1			3.00	75	90	11.40	4.05	12.30	17.95	1.50		
400	22.7	25.7	124.5			3.20	90	110	14.60	6.59	20.00	26.53	1.70		
500	28.4	40.2	194.5			3.80	Rehau RAUTITAN stable standard pipe without insulation								
Pressure pipe PE 100 SDR 17 (Simona) similar 8074							Rehau RAUTITAN stable standard pipe without insulation								
90	5.4	1.47	6.397			1.50	16.2	20	2.60	0.14	0.20	0.38	1.00		
110	6.6	2.18	9.539			1.60	20	25	2.90	0.18	0.40	0.60	1.25		
125	7.4	2.78	12.318			1.80	25	32	3.70	0.22	0.50	0.73	1.50		
140	8.3	3.48	15.440			1.90	32	40	4.70	0.46	0.90	1.37	1.75		
160	9.5	4.58	20.195			2.00	40	50	6.00	0.73	1.40	1.93	2.00		
180	10.7	5.76	25.516			2.10	Pressure pipe PE 100 SDR 17 (Simona) similar 8074								
200	11.9	7.11	31.494			2.20	90	110	14.60	6.59	20.00	26.53	1.70		
225	13.4	9.01	39.863			2.30	110	125	11.40	4.05	12.30	17.95	1.50		
250	14.8	11	49.152			2.50	125	160	14.60	6.59	20.00	26.53	1.70		
280	16.6	13.9	61.739			2.60	Pressure pipe PE 100 SDR 17 (Simona) similar 8074								
315	18.7	17.6	78.124			2.80	160	200	14.60	6.59	20.00	26.53	1.70		
355	21.1	22.3	99.146			3.00	200	250	14.60	6.59	20.00	26.53	1.70		
400	23.7	28.2	125.846			3.20	250	315	14.60	6.59	20.00	26.53	1.70		
450	26.7	35.7	159.237			3.50	315	400	14.60	6.59	20.00	26.53	1.70		
500	29.7	44.2	196.668			3.80	400	500	14.60	6.59	20.00	26.53	1.70		
560	33.2	55.3	246.655			4.00	500	630	14.60	6.59	20.00	26.53	1.70		
630	37.4	70	312.097			4.20	630	710	14.60	6.59	20.00	26.53	1.70		
710	42.1	88.9	396.482			4.50	710	800	14.60	6.59	20.00	26.53	1.70		
800	47.4	112.7	503.284			5.50	800	900	14.60	6.59	20.00	26.53	1.70		
900	53.3	142.5	636.895			6.00	900	1000	14.60	6.59	20.00	26.53	1.70		
1000	59.3	176.1	786.249			6.00	Pressure pipe PE 100 SDR 17 (Simona) similar 8074								

¹⁾ Pipe weights (water-filled + insulation) are recommended values. The actual weight is depending on the used insulation material (supposition: 80 kg/m³). For the actual recommended values note the specifications of the manufacturer.

Pipe attachments

Permissible bending stress for allen screws and threaded bolts (4.6)



Threaded connection	distance L to the middle of the pipe [mm]					
	50	100	150	200	250	300
	Permissible load F_{rec} [N]					
M 8	100	50	33	25	13	-
M 10	200	100	66	50	32	19
M 12	350	175	116	87	68	40
M 16	888	444	296	222	177	137

Maximum deflection: $f_{max} = 3$ mm

Permissible steel tension: $\sigma_{zul} = 160$ N/mm² (allen screw/threaded bolts)