



Prolock sheet

PVC

Stiffness	EI_{rep}	120	[kNm ² /m]
Max. characteristic moment	M_{rk}	22.3	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	10.0 / 11.2	[kNm/m]
Modification factor (long/short term)	k_{mod}	0.45 / 0.5	[-]
Material factor	γ_m	1.2	[-]
Height	h	175	[mm]
Width	b	500	[mm]
Section area	A	117	[cm ² /m]
Section modulus	W_{el}	372	[cm ³ /m]
Moment Inertia	I_y	4614	[cm ⁴ /m]
Characteristic yield strength	$f_{m,0rep}$	60	[N/mm ²]
Max. design moment (long/short term)	$M_{r,det}$	8.4 / 9.3	[kNm/m]

PVC

Characteristic yield strength	f_{mk}	60	[N/mm ²]
Material factor	γ_m	1.2	[-]
Modification factor longterm	k_{mod}	0.45	[-]
Modification factor shortterm	k_{mod}	0.5	[-]
Shrink factor	k_{def}	1.5	< 15j
	k_{def}	2.3	> 15j
flexural strenght	f_{ud}	22.5	[N/mm ²]
	f_{ud}	25.0	[N/mm ²]
E modulus	E_{rep}	2600	[N/mm ²]
Weight (square meter)	G	17.5	[kg/m ²]
Weight (meter)	G	8.8	[kg/m]

Piles

		Soft wood	Soft wood	Soft wood	Soft wood	Azobé	Cloeziana	Cloeziana	Steel 235	Steel 235	Steel 355	
Quality		c18	c18	c18	c18	D70	RD70	RD70	s235	s235	s355	
Form		●	●	●	●	■	●	●	O	O	O	
Dimension	D_{out}	130	140	150	160	120	150	160	139.7	139.7	139.7	[mm]
Wall thickness	d								3.6	5.6	5.6	[mm]
Quantity		2	2	2	2	2	2	2	2	2	2	[p/m]
Stiffness	EI_{rep}	252	339	447	579	691	994	1287	1498	2231	2231	[kNm ² /m]
Max. characteristic moment	M_{rk}	7.76	9.70	11.93	14.48	40.32	46.39	56.30	24.00	35.75	54.00	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	4.39 / 5.59	5.41 / 6.88	6.56 / 8.35	7.96 / 10.13	22.18 / 28.22	25.51 / 32.47	30.96 / 39.41	24.00	35.75	54.00	[kNm/m]
Modification factor (long/short term)	k_{mod}	0.57 / 0.72	0.56 / 0.71	0.55 / 0.70	0.55 / 0.70	0.55 / 0.70	0.55 / 0.70	0.55 / 0.70	1.00	1.00	1.00	[-]
Material factor (long/short term)	γ_m	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1	1	1	[-]
Section area	A	265	308	353	402	288	353	402	31	47	47	[cm ² /m]
Section modulus	W_{el}	431	539	663	804	576	663	804	102	152	152	[cm ³ /m]
Characteristic yield strength	$f_{m,0rep}$	18	18	18	18	70	70	70	235	235	355	[N/mm ²]
Max. design moment (long/short term)	$M_{r,det}$	3.38 / 4.30	4.16 / 5.29	5.05 / 6.42	6.12 / 7.80	17.06 / 21.71	19.63 / 24.98	23.82 / 30.31	24.00	35.75	54.00	[kNm/m]

Combined Sheet piles

Stiffness	EI_{rep}	372	459	567	699	811	1114	1407	1618	2351	2351	[kNm ² /m]
Max. characteristic moment	M_{rk}	30.07	32.00	34.23	36.78	62.62	68.69	78.60	46.30	58.05	76.30	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	14.43 / 16.75	15.44 / 18.04	16.60 / 19.50	18.00 / 21.29	32.21 / 39.38	35.55 / 43.62	41.00 / 50.56	34.03 / 35.15	45.78 / 46.90	64.04 / 65.15	[kNm/m]
Modification factor (long/short term)	k_{mod}	0.48 / 0.56	0.48 / 0.56	0.48 / 0.57	0.49 / 0.58	0.51 / 0.63	0.52 / 0.64	0.52 / 0.64	0.74 / 0.76	0.79 / 0.81	0.84 / 0.85	[-]
Material factor (long/short term)	γ_m	1.23 / 1.23	1.23 / 1.24	1.24 / 1.24	1.24 / 1.25	1.27 / 1.27	1.27 / 1.27	1.27 / 1.28	1.05 / 1.06	1.04 / 1.04	1.03 / 1.03	[-]
Width	b	500	500	500	500	500	500	500	500	500	500	[mm]
Section area	A	382	425	470	519	405	470	519	148	164	164	[cm ² /m]
Section modulus	W_{el}	803	911	1034	1176	948	1034	1176	474	524	524	[cm ³ /m]
Max. design moment (long/short term)	$M_{r,det}$	11.74 / 13.60	12.52 / 14.59	13.41 / 15.72	14.49 / 17.09	25.42 / 31.00	27.99 / 34.27	32.18 / 39.61	32.36 / 33.29	44.11 / 45.04	62.36 / 63.29	[kNm/m]