



Prolock sheet

PVC			
Stiffness	E_{rep}	34,7	[kNm ² /m]
Max. characteristic moment	$M_{r,k}$	13,35	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	6,01 / 6,68	[kNm/m]
Modification factor (long/short term)	k_{mod}	0,45 / 0,5	[-]
Material factor	γ_m	1,2	[-]
Height	h	120	[mm]
Width	b	500	[mm]
Section area	A	100,9	[cm ² /m]
Section modulus	W_{el}	222,5	[cm ³ /m]
Moment Inertia	I_y	1335	[cm ⁴ /m]
Characteristic yield strength	$f_{m0,rep}$	60,0	[N/mm ²]
Max. design moment (long/short term)	$M_{r,det}$	5,0 / 5,6	[kNm/m]

PVC

Characteristic yield strength	$f_{m0,rep}$	60	[N/mm ²]
Material factor	γ_m	1,2	[-]
Modificationfactor longterm	k_{mod}	0,45	[-]
Modificationfactor 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	14,6	[kg/m ²]
Weight (meter)	G	7,1	[kg/m]

Piles

		Soft wood	Soft wood	Soft wood	Soft wood	Azobé	Azobé	Azobé	Azobé	Steel 235	Steel 235	Steel 235	Steel 235	Steel 355	
Quality		c18	c18	c24	c24	D70	D70	D70	D70	s235	s235	s235	s235	s355	
Form		●	●	●	●	■	■	■	■	O	O	O	O	O	
Dimension	D_{out}	100	100	100	100	70	70	76	76	88,9	88,9	88,9	88,9	88,9	[mm]
Wall thickness	d									3	3	4,85	4,85	4,85	[mm]
Quantity		2	4	2	4	2	4	2	4	2	4	2	4	4	[p/m]
Stiffness	E_{rep}	88	177	108	216	80	160	111	222	314	628	477	953	953	[kNm ² /m]
Max. characteristic moment	$M_{r,k}$	3,53	7,07	4,71	9,42	8,00	16,01	10,24	20,49	7,91	15,81	12,00	23,99	36,25	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	2,11 / 2,68	4,22 / 5,37	2,81 / 3,58	5,62 / 7,15	4,40 / 5,60	8,80 / 11,20	5,63 / 7,17	11,27 / 14,34	7,91	15,81	12,00	23,99	36,25	[kNm/m]
Modification factor (long/short term)	k_{mod}	0,60 / 0,76	0,60 / 0,76	0,60 / 0,76	0,60 / 0,76	0,55 / 0,70	0,55 / 0,70	0,55 / 0,70	0,55 / 0,70	1,00	1,00	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	1,3	1	1	1	1	1	[-]
Section area	A	157	314	157	314	98	196	116	231	16	32	26	51	51	[cm ² /m]
Section modulus	W_{el}	196	393	196	393	114	229	146	293	34	67	51	102	102	[cm ³ /m]
Characteristic yield strength	$f_{m0,rep}$	18	18	24	24	70	70	70	70	235	235	235	235	355	[N/mm ²]
Max. design moment (long/short term)	$M_{r,det}$	1,62 / 2,06	3,24 / 4,13	2,16 / 2,75	4,32 / 5,50	3,39 / 4,31	6,77 / 8,62	4,33 / 5,52	8,67 / 11,03	7,91	15,81	12,00	23,99	36,25	[kNm/m]

Combined Sheet piles

Stiffness	E_{rep}	123	211	143	251	115	195	146	257	349	663	511	988	988	[kNm ² /m]
Max. characteristic moment	$M_{r,k}$	16,88	20,42	18,06	22,77	21,35	29,36	23,59	33,84	21,26	29,16	25,35	37,34	49,60	[kNm/m]
Max. representative moment (long/short term)	$M_{r,rep}$	8,12 / 9,36	10,22 / 12,04	8,82 / 10,25	11,63 / 13,83	10,41 / 12,28	14,81 / 17,88	11,64 / 13,84	17,27 / 21,01	13,91 / 14,58	21,82 / 22,49	18,00 / 18,67	30,00 / 30,67	42,25 / 42,92	[kNm/m]
Modification factor (long/short term)	k_{mod}	0,48 / 0,55	0,50 / 0,59	0,49 / 0,57	0,51 / 0,61	0,49 / 0,57	0,50 / 0,61	0,49 / 0,59	0,51 / 0,62	0,65 / 0,69	0,75 / 0,77	0,71 / 0,74	0,80 / 0,82	0,85 / 0,87	[-]
Material factor (long/short term)	γ_m	1,22 / 1,23	1,24 / 1,24	1,23 / 1,23	1,25 / 1,25	1,24 / 1,24	1,26 / 1,26	1,25 / 1,25	1,26 / 1,27	1,08 / 1,08	1,05 / 1,05	1,06 / 1,06	1,03 / 1,04	1,02 / 1,03	[-]
Width	b	500	500	500	500	500	500	500	500	500	500	500	500	500	[mm]
Section area	A	258	415	258	415	199	297	216	332	117	133	127	152	152	[cm ² /m]
Section modulus	W_{el}	419	615	419	615	337	451	369	515	256	290	274	325	325	[cm ³ /m]
Max. design moment (long/short term)	$M_{r,det}$	6,63 / 7,63	8,25 / 9,69	7,17 / 8,31	9,33 / 11,07	8,39 / 9,87	11,78 / 14,18	9,34 / 11,08	13,67 / 16,59	12,91 / 13,47	20,82 / 21,37	17,00 / 17,56	29,00 / 29,56	41,25 / 41,81	[kNm/m]