

Reference guidelines for vinyl – composite sheet piles

	Type	Allowable Moment	Section Modulus	Moment of Inertia	Stiffness	Thickness	Height	Width	Shape	Weight	Weight	Section area	surface area	Comparison with wood (Azobe D60)		Comparison with wood (Pine C24)		
														on strength	on stiffness	on strength	on stiffness	
			$\sigma_d = 22,06$ N/mm2	$E = 0,02620$ *10 ⁵ N/mm2										$\sigma_d = 30$ N/mm2	$E_{wood} =$ 0,068*10 ⁵ N/mm2	$\sigma_d = 12$ N/mm2	$E_{wood} =$ 0,044*10 ⁵ N/mm2	
		M	Wx	Ix	E*I	t	D	W					one side	thickness	thickness	thickness	thickness	
		kNm/m	cm ³ /m	cm ⁴ /m	kNm ²	mm	mm	mm		kg/m	kg/m ²	cm ² /m	m ² /m ²	mm	mm	mm	mm	
Vinyl	SG-225	7,81	354	2.417	63,32	5,7	127	457	Ω	6,02	13,17	91,47	1,60	39,00	48,00	62,00	55,00	
	SG-300	13,27	602	5.541	145,17	6,4	178	305	Z	4,82	15,80	109,77	1,66	51,00	63,00	81,00	73,00	
	SG-325	12,27	556	5.333	139,72	6,4	178	610	Ω	8,99	14,74	102,41	1,57	49,00	62,00	78,00	72,00	
	SG-425	15,60	707	7.798	204,30	7,2	203	610	Ω	10,38	17,02	118,26	1,64	55,00	71,00	88,00	82,00	
	SG-525	18,99	861	10.758	281,85	7,4	229	610	Ω	11,62	19,05	132,34	1,77	61,00	79,00	97,00	91,00	
	SG-550	22,77	1.032	10.691	280,11	9,4	203	305	Z	7,42	24,33	169,05	1,83	67,00	79,00	106,00	91,00	
	SG-625	27,05	1.226	16.710	437,80	9,8	254	762	Ω	17,86	23,44	162,86	1,67	73,00	91,00	116,00	106,00	
	SG-650	34,18	1.549	20.184	528,82	10,2	254	457	Z	11,80	25,82	179,45	1,80	82,00	97,00	130,00	112,00	
	SG-750	41,66	1.888	24.870	651,61	11,7	254	305	Z	10,86	35,61	247,48	2,17	91,00	104,00	144,00	121,00	
	SG-950	65,72	2.979	46.527	1.219,02	16,5	305	457	Z	20,76	45,43	315,60	1,99	114,00	129,00	181,00	149,00	
	Flat-panel	36,92	1.673	12.399	324,85	7,4	229	610	F	14,31	23,46	163,00	2,06	85,00	83,00	135,00	96,00	
	CL-9000	18,27	828	10.038	262,99	7,1	229	610	Ω	10,72	17,57	121,39	1,70	60,00	77,00	95,00	89,00	
CL-9900	22,38	1.015	12.337	323,23	8,9	229	610	Ω	13,31	21,82	151,62	1,72	66,00	82,00	105,00	95,00		
Composite			$\sigma_d = 68,95$ N/mm2	$E = 0,18616$ *10 ⁵ N/mm2														
	GG-20	21,81	316	2.309	60,50	4,4/5,1	140	610	Ω	7,87	12,90	68,57	1,37	66,00	47,00	104,00	54,00	
			$\sigma_d = 68,95$ N/mm2	$E = 0,27579$ *10 ⁵ N/mm2														
	GG-30	46,38	673	7.063	185,06	6,4/6,7	203	457	Z	9,20	20,13	99,58	1,44	96,00	68,00	152,00	79,00	
	GG-50	76,57	1.110	14.236	372,99	8,3/9,0	254	914	Ω	22,99	25,15	130,39	1,48	123,00	86,00	195,00	100,00	
GG-75	136,59	1.981	36.313	951,41	10,2/10,9	356	610	Z	19,88	32,59	173,13	1,60	165,00	118,00	261,00	137,00		
GG-95	201,88	2.928	67.577	1770,52	13,7	432	762	Z	31,37	41,17	218,70	1,56	200,00	146,00	317,00	169,00		

Please contact us for an appropriate comparison with steel or aluminum sheet piles.