



Synthetic sheet piling

the green alternative



Warranty
50 year

Economical and
environmental
sheet piling solutions



ARBOFER
PRODUITS METALLURGIQUES &
PALPLANCHES EN P.V.C. RECYCLE



ZA Poléco Bruay'Co Bât 8 - 262, rue des Bouleaux
59860 BRUAY SUR L'ESCAUT
T +33 (0) 964 179 706 - F +33 (0) 327 230 811
Mail : info@arbofer.fr - www.arbofer.com



Synthetic (vinyl and composite) Shoreguard® sea walls are a successful alternative, especially for the widely-used wooden shoring walls.

Shoreguard® sea walls have as many advantages as applications.

The sheet piles are available in Z- and Omega formats in widths from 305 to 914 mm and in heights from 127 to 432 mm. Also a flatpanel profile as well as corner profiles are available. Shoreguard® sheet piles are currently used in more than 56 countries around the globe.

Synthetic sheet piles *are the*

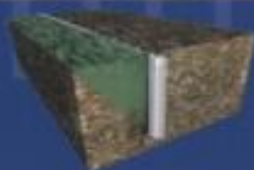


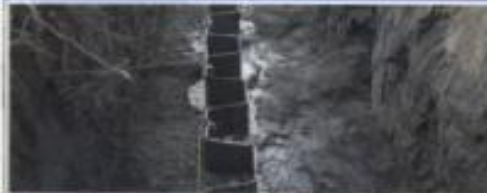
APPLICATIONS

- Bank/shore protection
- Dike heightening / reinforcement
- (Rail) Road stabilization
- Wave breakers
- Partition walls
- (Soil) retaining walls etc.

'Cradle to Cradle'

The synthetic sheet piles are made from recycled material, which is UV-resistant and can cope with huge differences in temperature. The 'cradle to cradle' concept of a recyclable product is in full effect here. The manufacturer is an advocate of the Carbon Footprint – environmentally-friendly production using strictly inspected (recyclable) raw materials. Tests guarantee the consistent quality.





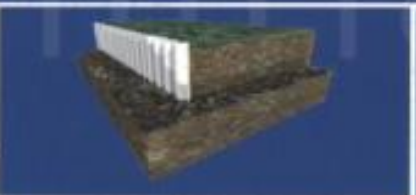
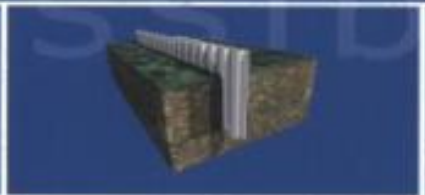
future

To fully finish off our complete range of synthetic sheet piling walls, you can choose from a variety of attachments, including: corner piles (*synthetic*), capping (*aluminum*), wales (aluminum/composite/synthetic with wooden core) and bollards (*synthetic with wooden core*). This way an aesthetically-pleasing structure is created where corrosion at the waterline doesn't stand a chance.

ADVANTAGES

- Environmentally-friendly, "green"
- UV resistant
- Maintenance-free
- Durable, long-lasting
- Chemically resistant
- Low installation costs
- Emission-free
- Low transport costs
- Fully recyclable
- Rust-proof, etc.

As far as the foundation goes, the application of the synthetic sheet piles knows no limits: where steel can reach, so can our synthetic sheet piles! In case the soil is particularly hard, a special technique can be used. We insert a supportive steel bar "mandrel" and the synthetic sheet pile into the ground. The mandrel is removed after the positioning of the synthetic sheet pile.



possibilities



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CORNER PROFILES

Profile	Fits on
CP 225 - 425	SG225, SG300, SG325, SG425, CL9000, CL9900, Flat panel, GG-20
CP 550	SG525, SG550, GG-30
CP 625/750	SG625, SG650, SG750, GG-50
CP 950	SG950
CP GG 75/95	GG-75, GG-95



CAPPING

Profile	WX cm ³	IX cm ⁴	Measurements			Fits on
			Outside mm	Inside mm	Height mm	
AC-575	50	474	140	188	127	SG-225 / GG-20
AC-575 STR*	92	863	140	188	127	SG-225 / GG-20
AC-850	105	1.362	210	259	140	SG-300, SG-325, SG-425, SG-550, GG-30
AC-850 STR*	175	2.272	210	259	140	SG-300, SG-325, SG-425, SG-550, GG-30
AC-855	180	2.363	210	262	163	SG-300, SG-325, SG-425, SG-550, GG-30
AC-855 STR*	250	3.273	210	262	163	SG-300, SG-325, SG-425, SG-550, GG-30
AC-1075	184	2.873	258	312	155	SG-525, SG-625, SG-650, SG-750, CL-9000, CL-9900, Flat Panel, GG-50
AC-1075 STR*	341	5.320	258	312	155	SG-525, SG-625, SG-650, SG-750, CL-9000, CL-9900, Flat Panel, GG-50
AC-1500	383	8.129	368	425	152	SG-950
AC-1600	399	9.001	394	451	152	GG-70, GG-75
AC-1900	455	11.989	470	527	152	GG-95

*Reinforced pile cap

WALES

Profile	WX cm ³	IX cm ⁴	Height mm	Width mm
AW-6 aluminum	104	899	152	152
AW-6 STR* aluminum	139	1.165	152	152
AW GG-6	167	1.374	152	152
AW GG-6 STR*	200	1.632	152	152

*Reinforced collar beam





Timberguard® *Marine Piling & Wales*

Rotting bollards and wales.... no more!!

Where wood can sustain damage from for example termites and other parasites, UV-radiation and ice damage, Timberguard® can offer a permanent solution.

Timberguard® is also the solution when it comes to conforming to the strict environmental regulations regarding the use of specially-treated wood.

Timberguard® is fabricated by enveloping wood in a synthetic (pvc) casing.

This is the same material used for the production of Sheet piles and is quite aesthetically-pleasing. Fabrication occurs by a specially-patented technology so that quality is consistently maintained.

Enclosed within the synthetic layer, the wood is immune to outside influences - making this product a very worthwhile investment.



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 (Azode D60)	
	M_{rep} N/mm ²	M_{design} N/mm ²												on strength $\sigma_c = 30$ N/mm ²	on stiffness $E_{wood} = 0,068 \cdot 10^6$ N/mm ²
	$E_c = 0,02620 \cdot 10^6$ N/mm ²														
	M representative kNm/m	M design kNm/m	Wx cm ³ /m	Ix cm ⁴ /m	E+I kNm ²	t mm	D mm	w mm					one side	thickness	thickness
SG-225	15,62	7,81	354	2.417	63,32	5,7	127	457	Q	6,02	13,17	91,47	1,60	39,00	48,00
SG-300	26,54	13,27	602	5.541	145,17	6,4	178	305	Z	4,82	15,80	109,77	1,66	51,00	63,00
SG-325	24,54	12,27	556	5.333	139,72	6,4	178	610	Q	8,99	14,74	102,41	1,57	49,00	62,00
SG-425	31,20	15,60	707	7.798	204,30	7,2	203	610	Q	10,38	17,02	118,26	1,64	55,00	71,00
SG-525	37,98	18,99	861	10.758	281,85	7,4	229	610	Q	11,62	19,05	132,34	1,77	61,00	79,00
SG-550	45,54	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
SG-625	54,10	27,05	1.226	16.710	437,80	9,8	254	762	Q	17,86	23,44	162,86	1,67	73,00	91,00
SG-650	68,36	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
SG-750	83,32	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
SG-850	88,24	44,12	2.000	25.400	665,48	13,1	254	457	Z	15,44	33,78	231,00	1,80	93,00	106,00
SG-950	131,44	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
CL-9000	36,54	18,27	828	10.038	262,99	7,1	229	610	Q	10,72	17,57	121,39	1,70	60,00	77,00
CL-9900	44,76	22,38	1.015	12.337	323,23	8,9	229	610	Q	13,31	21,82	151,62	1,72	66,00	82,00
FP-475	48,64	24,32	1.102	6.145	161,00	6,4/6,1	178	610	F	6,99	11,45	79,57	2,03	69,00	65,00
FP-575	73,84	36,92	1.673	12.399	324,85	7,4/12,1	229	610	F	14,31	23,46	163,00	2,06	85,00	83,00
	$\sigma_c = 68,95$ N/mm ²			$E_c = 0,27579 \cdot 10^6$ N/mm ²											
UC-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
UC-50	76,57		1.110	14.236	372,99	8,3/9,0	254	914	Q	22,99	25,15	130,39	1,48	123,00	86,00
UC-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
UC-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

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