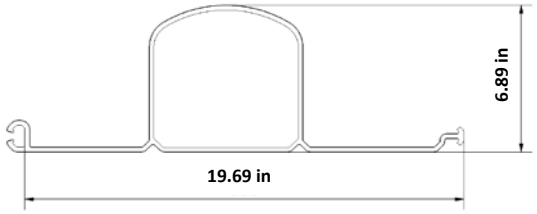
Prolock

sustainable bank protection

Prolock Omega



Prolock sheet

		PVC	
Stiffness	EI_{rep}	1, 274E+04	[lbf.in²/ft']
Max. characteristic moment	$M_{;k}$	5. 0	[kip.ft/ft']
Max. representative moment (long/short term)	$M_{;rep}$	2. 3 / 2. 5	[kip.ft/ft']
Modification factor (long/short term)	k_{mod}	0. 45 ' 0. 5	[-]
Material factor	γ_m	1. 2	[-]
Height	h	6. 89	[in]
Width	b	19. 7	[in]
Section area	A	5. 52	[in²/ft']
Section modulus	W_{el}	6. 91	[in³/ft']
Moment Inertia	I_y	33. 8	[in⁴/ft']
Characteristic yield strength	$f_{m0;rep}$	8. 70	[ksi]
Max. design moment (long/short term)	$M_{;d;el}$	1. 9 ' 2. 1	[kip.ft/ft']

PVC

Characteristic yield strength	$f_{m;k}$	8. 70	[ksi]
Material factor	γ_m	1. 2	[-]
Modificationfactor longtterm	k_{mod}	0. 45	[-]
Modificationfactor shorttterm	k_{mod}	0. 5	[-]
Shrink factor	k_{def}	1. 5	< 15j
	k_{def}	2. 3	> 15j
flexural strenght	$f_{u;d}$	3. 26	[ksi]
	$f_{u;d}$	3. 63	[ksi]
E modulus	E_{rep}	377	[ksi]
Weight (square foot)	G	3. 6	[lb/ft²]
Weight (foot)	G	5. 9	[lb/ft']

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}	5. 12	5. 51	5. 91	6. 30	4. 72	5. 91	6. 30	5. 50	5. 50	5. 50	[in]
Wall thickness	d								0. 14	0. 22	0. 22	[in]
Quantity		6. 56	6. 56	6. 56	6. 56	6. 56	6. 56	6. 56	6. 56	6. 56	6. 56	[p/ft]
Bending stiffness	EI_{rep}	2, 680E+04	3, 605E+04	4, 751E+04	6, 150E+04	7, 341E+04	1, 056E+05	1, 367E+05	1, 591E+05	2, 370E+05	2, 370E+05	[lbf.in²/ft']
Max. characteristic moment	$M_{;k}$	1. 75	2. 18	2. 68	3. 25	9. 06	10. 43	12. 66	5. 39	8. 04	12. 14	[kip.ft/ft']
Max. representative moment (long/short term)	$M_{;rep}$	0. 99 ' 1. 26	1. 22 ' 1. 55	1. 47 ' 1. 88	1. 79 ' 2. 28	4. 99 ' 6. 35	5. 74 ' 7. 30	6. 96 ' 8. 86	5. 39	8. 04	12. 14	[kip.ft/ft']
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. 0	1. 0	1. 0	[-]
Section area	A	12. 54	14. 55	16. 70	19. 00	13. 61	16. 70	19. 00	1. 45	2. 23	2. 23	[in²/ft']
Section modulus	W_{el}	8. 02	10. 02	12. 33	14. 96	10. 71	12. 33	14. 96	1. 90	2. 83	2. 83	[in³/ft']
Characteristic yield strength	$f_{m0;rep}$	2. 61	2. 61	2. 61	2. 61	10. 15	10. 15	10. 15	34. 08	34. 08	51. 49	[ksi]
Max. design moment (long/short term)	$M_{;d;el}$	**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**	**[kip.ft/ft']**

Combined Sheet piles

Bending stiffness	EI_{rep}	3, 954E+04	4, 879E+04	6, 025E+04	7, 424E+04	8, 615E+04	1, 183E+05	1, 494E+05	1, 718E+05	2, 497E+05	2, 497E+05	[lbf.in²/ft']
Max. characteristic moment	$M_{;k}$	6. 76	7. 19	7. 70	8. 27	14. 08	15. 44	17. 67	10. 41	13. 05	17. 15	[kip.ft/ft']
Max. representative moment (long/short term)	$M_{;rep}$	3. 24 ' 3. 76	3. 47 ' 4. 05	3. 73 ' 4. 38	4. 05 ' 4. 79	7. 24 ' 8. 85	7. 99 ' 9. 81	9. 22 ' 11. 37	7. 65 ' 7. 90	10. 29 ' 10. 54	14. 40 ' 14. 65	[kip.ft/ft']
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	19. 7	19. 7	19. 7	19. 7	19. 7	19. 7	19. 7	19. 7	19. 7	19. 7	[in]
Section area	A	18. 07	20. 07	22. 22	24. 52	19. 13	22. 22	24. 52	6. 98	7. 75	7. 75	[in²/ft']
Section modulus	W_{el}	14. 94	16. 94	19. 24	21. 87	17. 63	19. 24	21. 87	8. 81	9. 74	9. 74	[in³/ft']
Max. design moment (long/short term)	$M_{;d;el}$	**2. 64 ' 3. 06**	**2. 82 ' 3. 28**	**3. 01 ' 3. 53**	**3. 26 ' 3. 84**	**5. 72 ' 6. 97**	**6. 29 ' 7. 70**	**7. 23 ' 8. 90**	**7. 28 ' 7. 48**	**9. 92 ' 10. 13**	**14. 02 ' 14. 23**	**[kip.ft/ft']**

Prolock product by Profextru solutions that fit

feb/24