

SUPERPILE

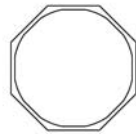
Engineering Specifications



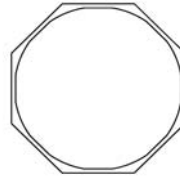
SUPERPILE is a high performance pultruded profile designed to take excessive compression and transverse loads. The pultruded profiles are manufactured with a high performance matrix for superior impact and abrasion resistance. SUPERPILE is ideal for:

- House foundation pilings
- Navy style bulkheads
- Docks pilings
- Fender piling
- Bearing piles
- Navigation markers
- Mooring piles

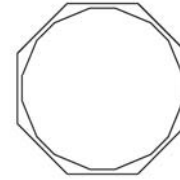
SUPERPILE is available with or without a high density polyurethane (HDPE) sleeve. The HDPE sleeve functions as a highly abrasion resistant protective layer that protects the pile in high impact situations and high abrasive dynamic load applications.



CP076
8" x .25" wall
(203mm x 6.3mm)



CP074
10.2" x .25" wall
(259mm x 6.3mm)



CP210
10.2" x .275" wall
(259mm x 7mm)

Mechanical and Physical Properties

	8" (203mm) Light Duty CP076	10.2" (259mm) Med. Duty CP074	10.2" (259mm) Heavy Duty CP210
Mechanical Properties			
Flexural strength (full section) psi (Mpa)	40,000 (275.8)	42,000 (289.6)	50,000 (344.7)
Axial Compression Strength psi (Mpa)	40,000 (275.8)	42,000 (289.6)	50,000 (344.7)
Modulus of Elasticity psi (Gpa)	3.8E6 (26.2)	4.0E6 (27.5)	4.5E6 (31.0)
Allowable Moment Kip-ft (kN·m)	30 (40.67)	50 (67.79)	61.5 (83.38)
Ultimate Hole Bearing Strength Lengthwise psi (Mpa)			
5/8" dia. Bolt	25,000 (172)	25,000 (172)	25,000 (172)
3/4" dia. Bolt	23,000 (159)	23,000 (159)	23,000 (159)
<i>Note: Allowable Bending Moment FS=2</i>			
Physical Properties			
Moment of Inertia in ⁴ (mm ⁴)	60.87 (2.53E7)	139.69 (5.81E7)	171.57 (7.14E7)
Section Modulus in ³ (mm ³)	15.22 (2.49E5)	27.39 (4.49E5)	33.64 (5.51E5)
Radius of Gyration in (mm)	2.81 (71.4)	3.60 (91.4)	3.57 (90.7)
Weight lbs/ft (N/m)	6.33 (92.4)	8.82 (128.7)	11.05 (161.3)
Area in ² (mm ²)	7.72 (4980)	10.76 (6942)	13.47 (8690)
Coefficient of Thermal Expansion Lengthwise	5.0 ⁻⁶ in/in/°F	5.0 ⁻⁶ in/in/°F	5.0 ⁻⁶ in/in/°F
Water Absorption	<.60%	<.60%	<.60%
Fiber Volume Fraction	≥ 50%	≥ 50%	≥ 50%
Cross Sectional Area in ² (mm ²)	7.72 (4980)	10.76 (6942)	13.47 (8690)
Surface Area ft ² (m ² /m)	2.2 (.67)	2.8 (.85)	2.8 (.85)



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