## MARINE APPLICATIONS

As a result of the CP40's corrosion resistance, strength and case of use; the CP40 posts/piles are ideal for many marine applications. However, the CP40's primary application along the waterfront is for both fender and bearing piles.

CP40 marine piles are best understood as a pre-jacketed, pre-stressed concrete pile. The confinement of an expanded polymer concrete core inside a burst-resistant fiberglass tube results in performance typical of a prestressed concrete structure. The core and tube react to external stresses as a composite system, and the tubing protects the core to corrosive factors.

**Structural and Marine Applications**

• bearing piles

• fender piles

• boardwalks

• navigational aids

• bulkheads

• mooring piles

• dolphins

• dock bumpers

• housing stilts

**CP40 marine fender and bearing piles:**

• efficient design backed by sound manufacturing process
• environmentally friendly (recycled materials available)
• easy to handle
• cost competitive
• round sections, up to 16" O.D.
• drive like steel piles

Wood, steel, prestressed concrete, and other materials currently used along waterways provide insufficient service life, require excessive maintenance, and expend scarce natural resources. Wood products rely on increasingly regulated toxic chemicals to mitigate degradation due to marine borers; steel corrodes; and concrete cracks, corrodes, and spalls.

The Marine Piling application of Composite Post 40 overcomes these problems and provides end-users with a cost-effective technology that meets the stringent performance standards required for port and harbor usage.

Through a series of field and laboratory tests it has been determined that CP40 marine piling possesses both the performance capabilities needed to meet the tough demands made on

components of waterfront structures and the material capabilities to endure harsh waterfront conditions.

Full-scale axial buckling tests were performed at Lehigh University's ATLSS Lab, while flexure tests were performed at Rutgers University's Civil Engineering Lab. A pile driving analysis (PDA) was also conducted in order to determine how well the material would hold up under the hammer impact. In addition, both the Naval Facilities Engineering Service Center (NFESC) and U.S. Army Corps Cold Regions Research Lab are performing a battery of tests to confirm the CP40's resistance to freeze/thaw cycles, U.V. degradation and abrasion. Most of these tests are accompanied by supporting documentation and may be provided upon request.

**STANDARD SIZES** (outside diameter)

- 6"
- 8"
- 10"
- 12"
- 14"
- 16"

**Standard Production Lengths**
Continuous lengths available up to 105 feet.

**Availability and Cost**
Composite Post 40 is available for shipment throughout the United States and Canada. Composite Post 40 is price/cost competitive with traditional materials.

**Standard Colors**
Black & Brown. Custom colors available.

**Warranty**
Design information is provided as an aid to the engineer or architect in developing working plans for specific applications. No warranties of any kind are made as to the suitability for particular applications or the results obtained therefrom.

For information & quotations contact


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