



Materials Specification – Composite Piles

Description:

This document describes the materials and properties of glass fiber reinforced thermosetting plastic piles.

General Requirements:

The composite piles shall be hollow cylindrical piles fabricated using a high vacuum infusion molding process. The tolerance of the outside diameter shall be equal to or less than 1/4". The exterior surface shall be hydrolytically stable, ultraviolet light resistant, 100% reactive toughened acrylic paint system, DURAPLEX TAC 456F Coating.

Materials:

Glass fibers shall be e-glass (electrical grade) with filament diameters between 18 and 26 microns. The glass fabric shall have a minimum dry weight of 123 oz. per square yard per ply. All layers in each ply shall be needled together with through-the-thickness glass fibers (z-axis) thus comprising a three-dimensional fiber architecture. Each ply shall consist of a minimum 50% axial glass fiber.

The matrix shall be a bisphenol-A type epoxy precursor thermosetting resin.

The exterior surface shall be DURAPLEX TAC 456F Coating which is a dual component, 100% reactive, toughened acrylic paint system for prepared and unprepared surfaces. DURAPLEX TAC 456F is designed for superb long term performance and protection in heavy weather environments.