

S L U T I O N S

PROJECT:

*Battery Park City
New York City, NY*

OWNER: *Battery Park City Association*

YEAR: *2014*



The Details

PROJECT CONTRACTOR:

Donofrio Construction

PROJECT ENGINEER:

Urban Engineers

MARKET/ENVIRONMENT:

Marine

SUBSTRATE:

Timber Piles

PRODUCTS USED:

**Five Star® PileForm™ F (FRP) Pile Rehabilitation Jackets &
Five Star® Pile Jacket Epoxy Grout LPL**



The Challenge — Commercial structures such as piers, docks, and bridges rely on the incredible strength of their substructure. These structures are under constant threat of corrosion and erosion inherent in the harsh marine environment. Replacing rotted piles is costly and time-consuming. The City of New York needed a way to cost-effectively “rehabilitate” deteriorating piles *without* the expense and time required to replace them.

The Solution — PileForm™ F (FRP) Pile Rehabilitation Jackets. Deteriorated timber piles at the Battery Park City pier were encased with Five Star’s fiberglass reinforced plastic jackets to repair and protect them from marine exposure such as ice, floating debris, chemical pollution, oils, acids and salt water. Critical to the successful and permanent installation of these jackets was Five Star® Pile Jacket Epoxy Grout LPL, a long pot-life underwater epoxy grouting system, which was pumped into the jackets using a Peristaltic pump over a pumping distance of approximately 200 feet.



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PRODUCT SOLUTIONS

Long Pot Life Underwater Epoxy Grout System

PILE JACKET EPOXY GROUT LPL

Five Star® Pile Jacket Epoxy Grout LPL is a three-component, 100% solids epoxy system specifically designed for underwater grouting and marine pile encapsulation where a longer pot life system is required. Five Star® Pile Jacket Epoxy Grout LPL is a low-viscosity resin and hardener system which is mixed with aggregate to encapsulate concrete, timber, or steel pilings in hostile marine environments.

ADVANTAGES

- Pumpable and Pourable, with Adjustable Aggregate
- High Strength
- 100% Solids, No Solvents
- Long Pot Life for Hot Weather Placement
- Low Odor Formulation

USES

- Marine Pile repair and restoration when used with Five Star® PileForm™ F (FRP) Pile Rehabilitation Jackets
- Engineered epoxy grouting system offers corrosion protection for concrete, steel and wood marine piles
- Excellent adhesion to masonry, concrete, wood, steel and most marine structural

FIVE STAR® SERVICES

- Design-A-Spec™ engineering specification assistance
- Technical on-call center with field and project experienced staff
- Field support representatives for on-site consultation
- Corporate research laboratory available to customize products for unique applications

Fiberglass Reinforced Plastic (FRP) Pile Jackets

PILEFORM™ F JACKETS

Five Star® PileForm™ F (FRP) Pile Rehabilitation Jackets meet and exceed marine engineering specifications for use in hostile marine environments where exposure to ice, floating debris, chemical pollution, oils, acids, salt water and where tidal action may occur. Five Star® PileForm™ F (FRP) Rehabilitation Jackets are available in translucent or may be gel coated to any specified color.

ADVANTAGES

- Easy Installation
- Lightweight for Easy Maneuvering by Divers
- Non-corrosive
- High Strength
- Excellent Solvent and Chemical Resistance
- High Abrasion and Impact Resistance

USES

- Can be used around timber, steel or concrete piles
- Available in permanent and reusable varieties that can be assembled topside or in the water

For worldwide availability, additional product information and technical support, contact your local Five Star® distributor, local sales representative, or you may call the Five Star Products' Engineering and Technical Service Center at +1-203-336-7900.

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