

# Rapid repair of piles and columns for bridges, piers, ports and more



A patented Fiber Reinforced Polymer (FRP) system for **repair and strengthening** of worn and corroded structures\*

## PileMedic® At-a-Glance

Laminates made with carbon or glass fibers

Thickness: 0.02-0.04 inches

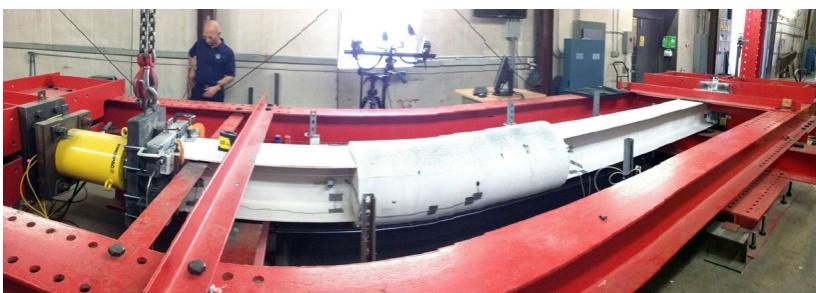
Tensile Strength: 28,000 – 155,000 psi

Laminate width: 48 inches

Length: Available in rolls of various lengths

**PileMedic® has significant engineering design and material property advantages.** It's a **rapid repair** structural strengthening system. Public and private institutions all over the world are choosing PileMedic® over conventional jackets. Here is why:

- 1. The Strongest Pile Jacket On The Market** – Tensile strength of PileMedic® laminates ranges from 28,000 to 155,000 psi which is 1.5 to 10 times higher than common fiberglass jackets.
- 2. One Size Fits All** – There is no need to order the jackets for the required size or shape in advance; a roll of laminate can be cut in the field to fit piles of any shape or size.
- 3. Seamless Shell Prevents Future Corrosion** – The unique seamless construction of PileMedic® prevents moisture and oxygen ingress and brings the corrosion process to a near halt.
- 4. Eliminates Ties** – PileMedic® jackets are a substitute for lateral steel ties that are time-consuming to install.
- 5. Confinement Pressure** – Higher axial capacity of piles can be reached with smaller cross sections.
- 6. Axial and Flexural Strength** – PileMedic® laminates are like steel plates that can be designed to significantly increase the axial, flexural and shear capacity of the pile.
- 7. Non-Corroding** – PileMedic® FRP laminates do not corrode and offer a long service life.
- 8. No Heavy Equipment** – Installation is easy and requires no heavy equipment.
- 9. Install in Tight Spaces** – The thin PileMedic® laminates allow repair of piles in tight spaces with limited clearance.
- 10. Fast Repair** – Within 24 hours of installation, the full capacity of the pile is reached or exceeded.



Shown right: Steel-H piles repaired by PileMedic® tested for Texas DOT at the University of Houston

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## PILEMEDIC® TESTING AGENCIES



# Tested by US Army COE and used by port authorities, DOTs, mines



**PileMedic® by QuakeWrap** is a structural column, pile, and pole repair system using proprietary Fiber Reinforced Polymer (FRP) laminate sheets. The sheets that are as thin as 0.025 in. are extremely strong (tensile strength up to 150,000 psi) but flexible. PileMedic® rolls can be cut to desired length and wrapped around piles, columns or poles to create a solid seamless shell of desired shape that is stronger than steel. The annular space between the pile and the shell is then filled with concrete or grout to create a 360 (degree symbol) monolithic structure.



We invite you to visit [PileMedic.com](http://PileMedic.com) or the Pile Retrofit playlist on the [QuakeWrap YouTube Channel](https://www.youtube.com/QuakeWrap) to fully appreciate the ease of installation, minimal service interruption and other benefits of this amazingly versatile repair system. These amazing repair projects include:

1. [US Army Corps of Engineers / US Navy](#) - After vigorous military-grade lab testing of PileMedic®, the U.S. Army Corps of Engineers takes PileMedic® to Joint Base Pearl Harbor for real world marine pile repair.
2. [Timber Pile Restoration Under Concrete Dock](#) - The largest agricultural port in the US has a concrete and timber dock with 500+ timber piles that exhibited extreme deterioration. PileMedic was chosen to solve this problem.
3. [Repair of ASR-Contaminated Concrete Piles in Crocodile-Infested River](#) - Queensland DTMR protects bridge piles from premature failure from corrosion with PileMedic, effectively repairing structures without interruption to service (or interference from crocodiles).
4. [Port of Seattle](#) - The Port of Seattle specified PileMedic® to design and retrofit octagonal prestressed driven piles. The PileMedic® system increased the axial and moment capacity of the concrete piles.

\*This exclusive repair technique is protected by U.S. Patents #8650831, #9376782 and #9890546. **QuakeWrap Inc. is the original innovator and developer of Fiber Reinforced Polymer (FRP) products for infrastructure repair and renewal**, providing structural engineering services, sealed drawings, tested materials, and installation by its own specialty company, FRP Construction LLC.

**ROHRI**

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