



Product Data Sheet
PipeMedic™ PC40.2
for Structural Strengthening and Leak Proofing

DESCRIPTION

PipeMedic™ PC40.2 is a high-strength unidirectional protruded laminate constructed with carbon fibers. The FRP laminate is bonded to the substrate using QuakeBond™ J201TC (Tack Coat). The PipeMedic™ laminate is ideal for repair and retrofit of pipes, culverts and tanks.

USE

➤ Repair of pipes, culverts and tanks to achieve strengthening and water-proofing.

ADVANTAGES

- The laminates are manufactured in our plant with the highest quality control.
- Multiple layers of carbon fabric can be combined into a single laminate.
- A corrosion barrier fabric such as a glass or polyester veil can be embedded on both sides of the laminate.
- Leak proofing and strengthening achieved simultaneously.
- No excavation required (access through manhole).
- Corrosion-resistant system can withstand various chemicals.
- Non-toxic, odorless resins allow installation with little ventilation.
- No reduction of inside diameter of pipe.
- Smooth finish reduces friction losses in pipe.
- Laminates can be installed in individual rings or as a continuous spiral.
- Same laminate fits any pipe with a diameter of 6 inches or larger, as well as circular tanks and silos.

PACKAGING

Standard rolls are 50 in. X 50 yards (1.27 m X 45 m). PipeMedic™ laminates can be custom manufactured in widths up to 60 inches.

SHELF LIFE

Unlimited shelf life in proper storage conditions.

STORAGE CONDITIONS

Store in dry place at 30°-120° F (0°-50° C).

APPLICATION

Surface must be clean and sound; it may be dry or damp but must be free of standing water and frost. Remove dust, laitance, grease, curing compounds, disintegrated materials and other bond inhibiting materials from the surface. Existing uneven surfaces must be filled with an appropriate repair mortar. The adhesive strength of the substrate must be verified after surface preparation by random pull-off testing (ACI 503R) at the discretion of the engineer. Minimum tensile strength of 200 psi (1.4 MPa) with substrate failure is required.

Any sharp edges (i.e. fins, form-marks, etc.) must be ground smooth and flush.

- 1) Wipe PipeMedic™ with appropriate cleaner (e.g. acetone or MEK) using clean cloth.

- 2) Apply QuakeBond™ J201TC onto the substrate or the back side of PipeMedic™ with a trowel to a nominal thickness of 40 mil (1.0 mm). A notched trowel may be used for this application.
- 3) Apply the epoxy coated face against the surface of the pipe or tank and press firmly with hand pressure to ensure uniform contact between the PipeMedic™ and the substrate surface.
- 4) Provide adequate overlaps in the hoop and longitudinal direction and apply epoxy between the overlap regions to make sure proper bond is achieved.
- 5) The bonded PipeMedic™ laminate should not be disturbed for 24 hours.

Installation of QuakeWrap® products must be performed only by specially trained and approved contractors.

Laminates can be cut to appropriate length using commercial quality heavy duty shears. Care must be taken to support both sides of the laminate during cutting to avoid splintering. Since dull or worn cutting tools can damage, weaken or fray the fiber, their use should be avoided.

LIMITATIONS

Design calculations must be made and certified by an independent licensed professional engineer.

CAUTION

PipeMedic™ PC40.2 is non-reactive and fully cured. It does not require a Material Safety Data Sheet (MSDS). However, caution must be used when handling since a fine carbon dust may be present on the surface. Gloves must therefore be worn to protect against skin irritation. Care must also be taken when cutting the laminates to protect against airborne carbon dust generated by the cutting procedure. Use of an appropriate, properly fitted NIOSH approved respirator is recommended.

PIPEMEDIC™ PC40.2 PROPERTIES		
	US Units	SI Units
Longitudinal (0°) Direction:		
Tensile Strength (ASTM D3039)	156 ksi	1,080 MPa
Modulus of Elasticity (ASTM D3039)	13,800 ksi	95,500 MPa
Ultimate Elongation (ASTM D3039)	0.77 %	0.77 %
Transverse (90°) Direction:		
Tensile Strength (ASTM D3039)	9.3 ksi	64 MPa
Modulus of Elasticity (ASTM D3039)	1,190 ksi	8,200 MPa
Ultimate Elongation (ASTM D3039)	1.0%	1.0%
Laminate Properties:		
Ply Thickness	0.026 in.	0.66 mm

KEEP OUT OF REACH OF CHILDREN.
 NOT FOR INTERNAL CONSUMPTION.

FOR INDUSTRIAL USE ONLY.
 KEEP CONTAINER CLOSED TIGHTLY.

QuakeWrap, Inc. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. QUAKEWRAP, INC. SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.