



**PENTATEX GROUP**

# PENTATEX CF™ Carbon System

Pipe structural reinforcement system

## PERFORMANCE

This composite repair system based on carbon fiber and epoxy (Carbon Fiber Reinforced Polymer - PRFC) has been designed to restore the mechanical integrity of pipes.

Each **PENTATEX CF™** Repair Kit contains the following 100% solids based epoxy components: Primer, Resin, Putty and Carbon Fiber. These components are specially combined to form the high performance **PENTATEX CF™** system, which allows mechanical recovery of corroded, damaged and eroded areas of various metallic assets.

## COMPATIBLE TECHNOLOGY

**PENTATEX CF™** is fully compliant with DOT and ASME B31, B31.8, B31.4, B31.G and API 570 regulations. It has been tested and approved to ASME PCC-2 art. 4.1 and ISO TS 24817 as a basis for product characteristics, engineering design and product installation, and personnel training.

## CONTACT US

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Properties	Metric System	English System
<b>Thickness per layer</b>	0.57 mm	0.023 in
<b>Modulus of Elasticity, Circumferential</b>	$4.91 \times 10^7$ kpa	$7.13 \times 10^6$ psi
<b>Modulus of elasticity, Axial</b>	$2.38 \times 10^7$ kpa	$3.46 \times 10^6$ psi
<b>Tensile Strength, Circumferential</b>	$5.72 \times 10^5$ kpa	$8.3 \times 10^4$ psi
<b>Tensile Strength, Axial</b>	$2.41 \times 10^5$ kpa	$3.5 \times 10^4$ psi
<b>Coefficient of Thermal Expansion, Circumf.</b>	$9.29 \times 10^{-6}/^\circ\text{C}$	$5.16 \times 10^{-6}/^\circ\text{F}$
<b>Coefficient of Thermal Expansion, Axial</b>	$16.79 \times 10^{-6}/^\circ\text{C}$	$9.33 \times 10^{-6}/^\circ\text{F}$
<b>setting time</b>	6-8 Hours @ 25°C	6-8 Hours @ 77°F
<b>Maximum operating temperature</b>	-50°C to 82°C	-58°F to 180°F
<b>Shear stress resistance (Adhesion)</b>	> 17,236 kpa @ 77°F	> 2,250 psi @ 77°F
<b>Hardness</b>	80 Shore D	80 Shore D
<b>Elastic plastic behavior</b>	1.30% Strain to Failure	1.30% Strain to Failure

**PENTATEX CF™** is a unique solution that provides a structural repair resistant to chemical and corrosive environments. In the case of structures exposed to aggressive factors or reinforcement of damaged and corroded areas, our systems allow great economic savings compared to other traditional options such as metal sleeves or section replacement.

