

## PROPERTIES / FEATURES

PROPERTIES	DIAMOND WRAP® HP™
Total Layers	2 – 7
Cure Time (80 °F) (hr)	8
Maximum Operating Temperature (°F)	180°F
Chemical Resistance (pH range)	See Chemical Resistance Chart
Nominal Thickness (in)	.045 (2ply) – .1575 (7ply)
Carbon Fiber Content by Volume (FVF)	21 – 40%
Glass Fiber Content by Volume (FVF)	0%
Lap Shear Strength (Adhesive) (psi)	>1250
Compressive Strength of CMF Putty (psi)	8,805
Hardness Shore D	74 to 80
Linear Elastic Behavior (% Strain @ Ultimate Strength)	1.27% strain
Elastic Modulus Hoop Direction (psi)	7.13 x 10 <sup>6</sup>
Elastic Modulus Axial Direction (psi)	3.46 x 10 <sup>6</sup>
Tensile Strength (ksi) Hoop	83.6
Tensile Strength (ksi) Axial	35.9
Coefficient of Thermal Expansion Hoop direction (in/in/°F)	1.4 x 10 <sup>-5</sup>
Coefficient of Thermal Expansion Axial direction (in/in/°F)	.71 x 10 <sup>-5</sup>
Fatigue (Cycles to Failure) (0–100% MAOP)	50% Wall Loss > 110,000 cycles
Stiffness Comparison to Steel	1/4
Meets Requirements of ASME B31G, PCC, API, AGA, and DOT	Yes

FEATURES	DIAMOND WRAP® HP™
Install on Reducers, Elbows, Tees	Yes
Installation Near Weld Joint 50%	Yes
Repair of Girth Welds	Yes
Salt Water Service	Yes
Maximum Wet Service Temp (°F)	180°
Max Operating Temp/Svc Life (°F)	180°
Drill Thru Wrap to Access Pipe	Yes
MSDS Hazardous Shipping Adhesive	No
UT Inspection Through Repair	Yes