

# Transmission Pipeline Products



Family Brand	Product Name	Primary Use	Per Ply Thickness	Max Temperature	Fabric Description	Resin Description
Clock Spring®	Clock Spring	Metal loss and small deformations	0.075 in. (1.9 mm)	201°F (94°C)	Unidirectional (hoop) Fiberglass	Pre-cured Polyester
	Clock Spring HT			264°F (129°C)	Unidirectional (hoop) Fiberglass	High-temp pre-cured Vinyl Ester
	Snap Wrap	Metal loss and small deformations with limited thickness availability	0.075 in. (1.9 mm)	201°F (94°C)	Unidirectional (hoop) Fiberglass	Pre-cured Polyester
	Snap Wrap HT			264°F (129°C)	Unidirectional (hoop) Fiberglass	High-temp pre-cured Vinyl Ester
A+ Wrap™	A+ Wrap	Metal loss and small deformations including non-straight geometries	0.013 in. (0.33 mm)	194°F (90°C)	Bi-directional fiberglass	Moisture cured Polyurethane
Atlas™	Atlas	Large deformation and crack/crack-like features	0.017 in. (0.43 mm)	180°F (82°C)	Bi-directional carbon fiber	High-strength epoxy
	Atlas HT			450°F (232°C)	Bi-directional carbon fiber	High-temp epoxy
	Atlas UA	Axially dominated repairs	0.016 in. (0.41 mm)	180°F (82°C)	Unidirectional (axial) carbon fiber	High-strength epoxy
	Atlas UA HT			448°F (231°C)	Unidirectional (axial) carbon fiber	High-temp epoxy
Contour Apex™	Contour Apex	Metal loss and small deformations	0.042 in. (1.07 mm)	212°F (100°C)	Multidirectional Fiberglass	High-strength epoxy

## Defect Type Overview

<b>Metal Loss:</b>	Corrosion   Internal wall loss   Gouges   Minor manufacturing defects   Abrasion
<b>Deformation:</b>	Plain Dents   Dents on weld   Buckles   Ovality concerns   Wrinkle Bends (hoop)
<b>Crack/Crack Like:</b>	Seam-weld anomalies   SCC   Plain body cracks   Laminations   Severe manufacturing defects
<b>Axial Dominated:</b>	Girth weld anomalies   Geohazards   Bending loads   Thermal cycling   Wrinkle Bends (axial)