



▶ PIPING SYSTEM MATERIAL COMPARISON

	▶ API 5L X-Grades Pipe	Abrasive Resistant Pipe	Induction-Hardened Pipe ▶
Hardness	150-170	230-280	480-650
Abrasion Resistant	Moderate	Good	Very Good
Impact Resistant	Good	Good	Moderate
Strength	Good	Very Good	Excellent
Lengths	100'	100'	50'
Handling & Installation	Excellent	Excellent	Very Good
Fabrication	Unlimited	Unlimited	Some Limitations
Wear Monitored	Yes/UT	Yes/UT	Yes/UT
Emergency Repair	Easily Completed	Easily Completed	Easily Patched
Initial Cost	10% above Mild Steel	15-25% above Mild Steel	50-100% above Mild Steel
Typical Life Expectancy	Up to 1.5 times Mild Steel	Up to 3 times Mild Steel	Up to 6 times Mild Steel
Advantages	Improved Wear Over Mild Steel; Lengths to 100'; Good ductility	Vast Improvement Over Mild Steel; Lengths to 100'; Good ductility	Excellent combination of abrasion & impact resistance
Disadvantages	Limited in wear No corrosion resistance	No corrosion resistance	Limited ductility No corrosion resistance