

Element	Hardness	Strength	Yield Point	Elongation	Reduction of Area	Impact Value	Elasticity	High Temperature Stability	Cooling Rate	Carbideforming	Resistance to wear	Machinability	Scaling	Nitridability	Resistance to Corrosion
Carbon	↑↑	↑↑	↑↑	→	2	→	→	→	→			→	→	2	2
Silicon	↑	↑	↑↑	→	2	→	↑↑	→	→	→	→	→	→	→	1
Manganese At Perlite Steels	↑	↑	↑	2	2	2	↑	2	→	2	→	→	2	1	1
Manganese At Austenitic Steels	↑↑	↑	→	↑↑	2	1	1	1	↑↑	1	→	↑↑	↑↑	1	1
Chromium	↑↑	↑↑	↑↑	→	→	→	↑	↑	↑↑	↑	→	1	↑↑	↑↑	↑↑
Nickel At Perlite Steels	↑	↑	↑	2	2	2	1	→	→	1	→	→	→	1	1
Nickel at Austenitic steels	↑↑	↑	→	↑↑	↑	↑↑	1	↑↑	→	1	→	↑↑	↑↑	1	↑
Aluminium	-	-	-	1	→	→	1	1	1	1	→	1	↑↑	↑↑	1
Tungsten	↑	↑	↑	→	→	2	1	↑↑	→	↑	↑↑	→	→	→	1
Vanadium	↑	↑	↑	2	2	→	↑	↑	→	↑↑	↑	1	→	→	→
Cobalt	↑	↑	↑	→	→	→	1	↑	↑	1	↑↑	2	→	1	1
Molybdenum	↑	↑	↑	→	→	→	1	↑	→	↑↑	↑	→	↑	↑	1
Copper	↑	↑	↑↑	2	2	2	1	→	1	1	1	2	2	1	→
Sulphur	-	-	-	→	→	→	1	1	1	1	1	↑↑	1	1	→
Phosphorus	↑	↑	↑	→	→	↑↑	1	1	1	1	1	↑↑	1	1	1

↑ Increase

→ Reduction

2 Constant

Unknown

Several arrows= more intensive effect