Grade 4.8 Steel

Please be advised that grade 4.8 steel can be made from number of different specific grades and alloys of steel.

Some fasteners may exhibit reduced mechanical properties dependant on their shape.

The full technical information offered is available on standard ISO 898.

Chemical Contenta %

	Carbon		Phosphorus	Sulphur	Boron	Tempering
	Min %	Max %	Max %	Max %	Max %	Temp (°C)
Carbon steel or carbon steel with additives[d]	-	0.55	0.55	0.05	0.06	-

d - Free cutting steel is allowed for these property classes with the following maximum sulphur. phosphorus and lead contents:

Sulphur: 0.34 %
Phosphorus: 0.11 %
Lead: 0.35 %.

Physical Properties

Tensile Strength (Mpa) - Nominal	400
Tensile Strength (Mpa) - Minimum	420
Lower yield stength (MPa) - Nominal	-
Lower yield stength (MPa) - Minimum	-
Stress at 0.2% Elongation (Mpa) - Nominal	-
Stress at 0.2% Elongation (Mpa) - Minimum	-
Stress under proof load (Mpa)	-
Proof Strength Ratio	0.91
Elongation after fracture for machine test pieces (%)	-
Percentage reduction of area after fracture for machined test pieces (%)	-
Head soundness	No fracture
Vickers Hardness (HV) - Maximum	220
Vickers Hardness (HV) - Minimum	130
Brinell Hardness (HBW) - Maximum	209
Brinell Hardness (HBW) - Minimum	124
Rockwell hardness (HRB) - Maximum	95
Rockwell hardness (HRB) - Minimum	71
Rockwell hardness (HRC) - Maximum	-
Rockwell hardness (HRC) - Minimum	-