

# Material: EN 1.5638

## Standard Specification for Steel Castings for Pressure Purposes; Steel Grades for Use at Low Temperatures

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** EN 1.5638 Steel Castings for Pressure Purposes; Steel Grades for Use at Low Temperatures

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries

**Grade Belongs to the Industry:** Casting

Chemical Composition		
Carbon	C %	0.060 - 0.120
Silicon	Si %	0.600 max.
Manganese	Mn %	0.500 - 0.800
Phosphorus	P %	0.020 max.
Sulphur	S %	0.015 max.
Nickel	Ni %	3.000 - 4.000
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
Normalizing + Tempering or Hardening + Tempering	

Mechanical Properties	
Tensile Strength in Mpa	500 - 650
Yield Strength in Mpa	360 min.
Elongation in %	20 min.
Reduction of Area in %	-
Hardness in BHN	-
Impact in Joule	27 @ J RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA-352 Grade LC3	ASME	USA	Casting
1.5638	DIN	Germany	Casting
J31550	UNS	USA	Casting
503-490	BS	British	Forging
AM8Ni14	UNE	Spain	Casting
G12Ni14	UNI	Italy	Casting
A352 LC3	ASTM	USA	Casting

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