

## Material: ASTM A757 Grade C1Q

### Standard Specification for Steel Castings, Ferritic and Martensitic, for Pressure-Containing and Other Applications, for Low-Temperature Service

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A757 / A757M Steel Castings, Ferritic and Martensitic, for Pressure-Containing and Other Applications, for Low-Temperature Service

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

**Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.250 max.	Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	1.200 max.		
Phosphorus	P %	0.025 max.		
Sulphur	S %	0.025 max.		
Chromium	Cr %	0.400 max.		
Nickel	Ni %	1.500 - 2.000		
Molybdenum	Mo %	0.150 - 0.300		
Vanadium	V %	0.030 max.		
Copper	Cu %	0.500 max.		
Other	Ot %	1.000 max.	<b>Mechanical Properties</b> Tensile Strength in Mpa 515 min. Yield Strength in Mpa 380 min. Elongation in % 22 min. Reduction of Area in % 35 min. Hardness in BHN - Impact in Joule 20 min. @ -46°C	
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
4615	SAE	USA	Bar
4617	AISI	USA	Steel
4617	SAE	USA	Bar, Steel and Forging
4620	SAE	USA	Steel
4615	AISI	USA	Steel
4620	AISI	USA	Steel
J12582	UNS	USA	Casting

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