

# Material: BS 10213 EN 1.6220

## Standard Specification for Steel Castings for Pressure Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** BS 10213 Steel Castings for Pressure Purposes

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

**Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment															
Carbon	C %	0.170 - 0.230	Normalising or Annealing or Hardening + Tempering															
Silicon	Si %	0.600 max.																
Manganese	Mn %	1.000 - 1.600																
Phosphorus	P %	0.020 max.																
Sulphur	S %	0.020 max.																
Chromium	Cr %	0.300 max.																
Nickel	Ni %	0.800 max.																
Molybdenum	Mo %	0.120 max.																
Copper	Cu %	0.300 max.																
Vanadium	V %	0.030 max.																
Iron	Fe %	Balance	<table border="1"> <thead> <tr> <th colspan="2">Mechanical Properties</th> </tr> </thead> <tbody> <tr> <td>Tensile Strength in Mpa</td> <td>480 - 620</td> </tr> <tr> <td>Yield Strength in Mpa</td> <td>300 min.</td> </tr> <tr> <td>Elongation in %</td> <td>20 min.</td> </tr> <tr> <td>Reduction of Area in %</td> <td>-</td> </tr> <tr> <td>Hardness in BHN</td> <td>-</td> </tr> <tr> <td>Impact in Joule</td> <td>27 min. @ -30°C</td> </tr> </tbody> </table>		Mechanical Properties		Tensile Strength in Mpa	480 - 620	Yield Strength in Mpa	300 min.	Elongation in %	20 min.	Reduction of Area in %	-	Hardness in BHN	-	Impact in Joule	27 min. @ -30°C
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J02505	UNS	USA	Casting
SA 352 LCB	ASME	USA	Casting
SA 660 WCC	ASME	USA	Centrifugal Casting
J02503	UNS	USA	Casting
A216 WCB	ASTM	USA	Casting
1.0619	EN	European Union	Casting
1.0619	BS	British	Casting

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