



Material - ASTM A660 Garde WCC

Standard Specification for Centrifugally Cast Carbon Steel Pipe for High-Temperature Service

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A660 Garde WCC Centrifugally Cast Carbon Steel Pipe for High-Temperature Service

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

Grade Belongs to the Industry - Fusion Welding, Bending and Forming

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 %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	0.500 max.		
Nickel	Ni %	0.500 max.		
Molybdenum	Mo %	0.200 max.		
Copper	Cu %	0.300 max.		
Vanadium	V %	0.030 max.		
other	%	1.000 max.	Mechanical Properties	
Iron	Fe %	Balance	Tensile Strength in Mpa	485 - 655
-	-	-	Yield Strength in Mpa	275 min.
-	-	-	Elongation in %	22 min.
-	-	-	Reduction of Area in %	35 min.
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA 216 WCC	ASME	USA	Casting
SA 660 WCC	ASME	USA	Centrifugal Casting
J02503	UNS	USA	Casting
1.0619	EN	European Union	Casting
1.0619	DIN	Germany	Casting
A216 WCB	ASTM	USA	Casting
A216 WCC	ASTM	USA	Casting

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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