



## Material - ASME SA-217 Grade WC9

**Standard Specification for Martensitic Stainless Steel and Alloy Steel Castings for Pressure Containing Parts Suitable for High Temperature Service**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - SA-217 Grade WC9 Martensitic Stainless Steel and Alloy Steel Castings for Pressure Containing Parts Suitable for High 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 %	0.050 - 0.180	Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	0.400 - 0.700		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.045 max.		
Chromium	Cr %	2.000 - 2.750		
Nickel	Ni %	0.500 max.		
Molybdenum	Mo %	0.900 - 1.200		
Tungsten	W %	0.100 max.		
Copper	Cu %	0.500 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b> Tensile Strength in Mpa      485 - 655 Yield Strength in Mpa      275 min. Elongation in %      20 min. Reduction of Area in %      35 min. Hardness in BHN      - Impact in Joule      -	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J21890	UNS	USA	Casting
10 CrMo 9-10	AFNOR NF	France	Steel
10 CrMo 9-10	DIN	Germany	Forging
10 CrMo 9-10	EN	European Union	Casting
10 CrMo 9-10	UNI	Italy	Casting
622	BS	British	British
A217 Grade WC9	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](mailto:marketing@gravitycastindia.com)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.