



Material - BS 304 S 11

Standard Specification for Seamless Steel Bar for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - BS 304 S 11 Seamless Steel Bar for Pressure Purposes

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

Grade Belongs to the Industry - Steel and Bar

Chemical Composition			Heat Treatment	
Carbon	C %	0.030 max.	Solution Annealing	
Silicon	Si %	1.000 max.		
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.045 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	17.000 - 19.000		
Molybdenum	Mo %	1.000 max.		
Nickel	Ni %	9.000 - 12.000		
Titanium	Ti %	0.100 max.		
Niobium	Nb %	0.200 max.		
Copper	Cu %	0.700 max.	Mechanical Properties	
Iron	Fe %	Balance	Tensile Strength in Mpa	480 - 850
-	-	-	Yield Strength in Mpa	180 min.
-	-	-	Elongation in %	12 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HB	320 max.
-	-	-	Impact in Joule	55 @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.4541	EN	European Union	Tube
1.4541	DIN	Germany	Steel
1.4541	DIN	Germany	Steel
04Ch18N10	GOST	Russia	Steel
321	SAE	USA	Steel
X6CrNiTi18 10	DIN	Germany	Steel
X6CrNiTi18-10	AFNOR NF	France	Steel

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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