



Material - IS 8500 Fe590

Standard Specification for Structural Steel - MiCroalloyed

Group - Ferrous Mild Steel Alloys

Sub Group - IS 8500 Fe590 Structural Steel - MiCroalloyed

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

Grade Belongs to the Industry - Plate and Bar

Chemical Composition			Heat Treatment	
Carbon	C %	0.220 max.		
Silicon	Si %	0.450 max.		
Manganese	Mn %	1.800 max.		
Phosphorus	P %	0.040 max.	As Raw or Normalizing	
Sulphur	S %	0.040 max.		
Cerium	Ce %	0.480 max.		
Iron	Fe %	Balance		
-	1	-		•
-	1	-	Mechanical Properties	
-	-		Tensile Strength in Mpa	590 min.
-	-	-	Yield Strength in Mpa	450 min.
-	-	-	Elongation in %	20 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impac <mark>t in Joule</mark>	-

Cross Reference Table				
Material	Standard	Country Grade Belong to the Industry		
Fe590B	IS	India	Plate and Bar	
2062 E 350	IS	India	Steel, Plate, Wire, Rod, Tube and Forging	
1018	SAE	USA	Steel, Plate, Wire, Rod, Tube and Forging	
1018	AISI	USA	Steel, Plate, Wire, Rod, Tube and Forging	
A 830 G10180	ASTM	USA	Steel, Plate, Wire, Rod, Tube and Forging	
G10180	UNS	USA	Steel, Bar, Wire, Rod, Tube and Forging	
SA-29 1018	ASME	USA	Steel, Plate, Wire, Rod, Tube and Forging	

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