

Material: BS 735 A 51

Standard Specification for Steels for Mechanical and Allied Engineering Purposes

Group: Ferrous Mild Steel Alloys

Sub Group: BS 735 A 51 Steels for Mechanical and Allied Engineering Purposes

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

Grade Belongs to the Industry: Hot Formed Spring

Chemical Composition			Heat Treatment	
Carbon	C %	0.480 - 0.540	Annealing or Normalizing or Hardening + Tempering	
Silicon	Si %	0.200 - 0.350		
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	0.900 - 1.200		
Vanadium	V %	0.100 - 0.200		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	621 min.
-	-	-	Yield Strength in Mpa	345 min.
-	-	-	Elongation in %	20 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HB	277 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1606.0000	SS	Sweden	Casting
50 CD 4-M	AFNOR NF	France	Casting
5152	SAE	USA	Steel
1050	AISI	USA	Forging, Bar, Wire, and Shape
C 3	MSZ	Hungary	Steel
C48GW-N-A	JIS	Japan	Forging
A732 4A	ASTM	USA	Casting

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Customer Care: +91-99090 45075 Email: info@icastllp.com