



**GRAVITY CAST PVT. LTD.**  
**GRAVITY GROUP OF COMPANIES**

## Material - ISO 50CrMo4

### Standard Specification for Mild Steel Alloys Bar and Rod

Group - Ferrous Mild Steel Alloys

Sub Group - ISO 50CrMo4 Mild Steel Alloys Bar and Rod

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

Grade Belongs to the Industry - Bar and Rod

Chemical Composition			Heat Treatment	
Carbon	C %	0.460 - 0.540	As Raw or Annealing or Normalizing or Hardening and Tempering	
Silicon	Si %	0.100 - 0.400		
Manganese	Mn %	0.500 - 0.800		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	0.900 - 1.200		
Molybdenum	Mo %	0.150 - 0.300		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	800 - 1300
-	-	-	Yield Strength in Mpa	550 min.
-	-	-	Elongation in %	9 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	248 max.
-	-	-	Impact in Joule	15 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
50CrMo4	EN	European Union	Bar and Rod
1.7228	EN	European Union	Bar and Rod
4151	NBR	Brazil	Bar and Rod
G50CrMo4	ISO	International	Bar and Rod
SFCM 690 S	JIS	Japan	Bar and Rod
SFCM 740 S	JIS	Japan	Bar and Rod
SFCM 780 S	JIS	Japan	Bar and Rod

**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.

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