



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

## Material - EN 1.8920

**Standard Specification for Plates and Wide Flats Made of High Yield Strength Structural Steels**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - EN 1.8920 Plates and Wide Flats Made of High Yield Strength Structural Steels**

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

**Grade Belongs to the Industry - Steel**

Chemical Composition			Heat Treatment															
Carbon	C %	0.100 - 0.200	Annealing or Normalising or Hardening + Tempering															
Silicon	Si %	0.150 - 0.350																
Manganese	Mn %	0.600 - 1.000																
Phosphorus	P %	0.025 max.																
Sulphur	S %	0.250 max.																
Chromium	Cr %	0.400 - 0.650																
Nickel	Ni %	0.700 - 1.000																
Molybdenum	Mo %	0.400 - 0.600																
Copper	Cu %	0.150 - 0.500																
Vanadium	V %	0.030 - 0.080																
Boron	B %	0.0005 min.	<table border="1"> <thead> <tr> <th colspan="2">Mechanical Properties</th> </tr> </thead> <tbody> <tr> <td>Tensile Strength in Mpa</td> <td>795 min.</td> </tr> <tr> <td>Yield Strength in Mpa</td> <td>690 min.</td> </tr> <tr> <td>Elongation in %</td> <td>15 min.</td> </tr> <tr> <td>Reduction of Area in %</td> <td>30 min.</td> </tr> <tr> <td>Hardness in BHN</td> <td>-</td> </tr> <tr> <td>Impact in Joule</td> <td>-</td> </tr> </tbody> </table>		Mechanical Properties		Tensile Strength in Mpa	795 min.	Yield Strength in Mpa	690 min.	Elongation in %	15 min.	Reduction of Area in %	30 min.	Hardness in BHN	-	Impact in Joule	-
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Iron	Fe %	Balance																
-	-	-																
-	-	-																
-	-	-																
-	-	-																

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.8719	DIN	Germany	Steel
J12084	UNS	USA	Casting
6386 Type 12	AMS	USA	Steel
K11576	UNS	USA	Casting
SA-487 Grade 7A	ASME	USA	Casting
SA-592 Grade F	ASME	USA	Forging
A487 7A	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.

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