



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

## Material - UNS J12084

### Standard Specification for Alloy Steel Casting

Group - Ferrous Mild Steel Alloys

Sub Group - UNS J12084 Alloy Steel Casting

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.200 max.	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.800 max.		
Manganese	Mn %	0.600 - 1.000		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	0.400 - 0.800		
Nickel	Ni %	0.700 - 1.000		
Molybdenum	Mo %	0.400 - 0.600		
Copper	Cu %	0.150 - 0.500		
Vanadium	V %	0.030 - 0.100		
Tungsten	W %	0.100 max.		
Boron	B %	0.002 - 0.006		
Iron	Fe %	Balance		
-	-	-		
-	-	-		

  

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	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.8719	DIN	Germany	Steel
1.892	EN	European Union	Steel
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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