



## Material - DIN 1.1190 + N

### Standard Specification for Carbon Heat-Treatable Steel Casting

Group - Ferrous Mild Steel Alloys

Sub Group - DIN 1.1190 + N Carbon Heat-Treatable 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 %	0.390 - 0.440	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.250 - 0.400		
Manganese	Mn %	0.750 - 0.900		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Nitrogen	N %	0.0070 max. (P- content N up to		
Iron	Fe %	Balance		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa   460 - 620 Yield Strength in Mpa   345 min. Elongation in %   22 min. Reduction of Area in %   - Hardness in BHN   - Impact in Joule   -	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J04002	UNS	USA	Casting
1040	AISI	USA	Forging, Bar, Wire, and Shape
A 3	BS	British	Casting
42CD4M	AFNOR NF	France	Casting
A732 3Q	ASTM	USA	Casting
A732 1Q	ASTM	USA	Casting
A732 3A	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)**

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