



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

## Material - BS B 6

### Standard Specification for Steel Castings for General Engineering Purposes

Group - Ferrous Mild Steel Alloys

Sub Group - BS B 6 Steel Castings for General Engineering Purposes

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 % | 1.000 max.     |  |  |
| Manganese            | Mn % | 0.300 - 0.700  |  |  |
| Phosphorus           | P %  | 0.040 max.     |  |  |
| Sulphur              | S %  | 0.040 max.     |  |  |
| Chromium             | Cr % | 8.000 - 10.000 |  |  |
| Nickel               | Ni % | 0.400 max.     |  |  |
| Molybdenum           | Mo % | 0.900 - 1.200  |  |  |
| Copper               | Cu % | 0.300 max.     |  |  |
| Iron                 | Fe % | Balance        |  |  |
| -                    | -    | -              | <b>Mechanical Properties</b><br>Tensile Strength in Mpa      620 - 1050<br>Yield Strength in Mpa      420 min.<br>Elongation in %      12 min.<br>Reduction of Area in %      -<br>Hardness in HB      179 - 311<br>Impact in Joule      10 J @ RT |  |
| -                    | -    | -              |  |  |
| -                    | -    | -              |  |  |
| -                    | -    | -              |  |  |
| -                    | -    | -              |  |  |
| -                    | -    | -              |  |  |
| -                    | -    | -              |  |  |

| Cross Reference Table |          |         |                               |
|-----------------------|----------|---------|-------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry  |
| J13052                | UNS      | USA     | Casting                       |
| 200-400 W             | JIS      | Japan   | Casting                       |
| B 2                   | BS       | British | Forging                       |
| B 4                   | BS       | British | Forging                       |
| B 5                   | BS       | British | Forging                       |
| 6120                  | AISI     | USA     | Forging, Bar, Wire, and Shape |
| A732 5N               | 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.

**ONE STOP SOLUTION FOR METAL PARTS**