



## Material - ASME SA 487 Grade 9B

Low Alloy Steel and Martensitic Steel Castings Suitable for Pressure Containing Parts

Group - Ferrous Mild Steel Alloys

Sub Group - SA-487 Low Alloy Steel and Martensitic Steel Castings Suitable for Pressure Containing Parts

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

Grade Belongs to the Industry - Casting

| Chemical Composition |      |               | Heat Treatment                                    |          |
|----------------------|------|---------------|---|----------|
| Carbon               | C %  | 0.050 - 0.330 | 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 % | 0.750 - 1.100 |   |          |
| Nickel               | Ni % | 0.500 max.    |   |          |
| Molybdenum           | Mo % | 0.150 - 0.300 |   |          |
| Tungsten             | W %  | 0.100 max.    |   |          |
| Vanadium             | V %  | 0.030 max.    |   |          |
| Copper               | Cu % | 0.500 max.    | Mechanical Properties                             |          |
| Iron                 | Fe % | Balance       | Tensile Strength in Mpa                           | 725 min. |
| -                    | -    | -             | Yield Strength in Mpa                             | 585 min. |
| -                    | -    | -             | Elongation in %                                   | 16 min.  |
| -                    | -    | -             | Reduction of Area in %                            | 35 min.  |
| -                    | -    | -             | Hardness in BHN                                   | -        |
| -                    | -    | -             | Impact in Joule                                   | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| SA 487 Grade 9A       | ASME     | USA     | Casting                      |
| J13345                | UNS      | USA     | Casting                      |
| A487 9B               | ASTM     | USA     | Casting                      |
| A487 9C               | ASTM     | USA     | Casting                      |
| A487 9D               | ASTM     | USA     | Casting                      |
| A487 9E               | ASTM     | USA     | Casting                      |
| A487 9A               | 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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