



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A487 Grade 12

Standard Specification for Steel Castings Suitable for Pressure Service

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A487 Grade 12 Steel Castings Suitable for Pressure Service

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 - 0.200 | Normalising or Annealing or Hardening + Tempering | |
| Silicon | Si % | 0.600 max. | | |
| Manganese | Mn % | 0.400 - 0.700 | | |
| Phosphorus | P % | 0.035 max. | | |
| Sulphur | S % | 0.035 max. | | |
| Chromium | Cr % | 0.500 - 0.900 | | |
| Nickel | Ni % | 0.600 - 1.000 | | |
| Molybdenum | Mo % | 0.900 - 1.200 | | |
| Tungsten | W % | 0.100 max. | | |
| Copper | Cu % | 0.500 max. | | |
| Other | Ot % | 0.500 max. | Mechanical Properties | |
| Iron | Fe % | Balance | Tensile Strength in Mpa | 484 - 655 |
| - | - | - | Yield Strength in Mpa | 275 min. |
| - | - | - | Elongation in % | 20 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-217 Grade WC5 | ASME | USA | Casting |
| J22000 | UNS | USA | Casting |
| SA-487 Grade 12A | ASME | USA | Casting |
| SA-487 Grade 12B | ASME | USA | Casting |
| A217 Grade WC5 | 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

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