GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - BS EN 10302 1.4938 (X12CrNiMoV12-3)

## Standard Specification for Creep Resisting Steel, Nickel and Cobalt Alloys

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - BS EN 10302 1.4938 (X12CrNiMoV12-3) Creep Resisting Steel, Nickel and Cobalt Alloys**

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

**Grade Belongs to the Industry - Steel**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.080 - 0.150 |
| Silicon | Si % | 0.500 max. |
| Manganese | Mn % | 0.400 - 0.900 |
| Phosphorus | P % | 0.025 max. |
| Sulphur | S % | 0.015 max. |
| Nitrogen | N % | 0.020 - 0.040 |
| Chromium | Cr % | 11.000 - 12.500 |
| Molybdenum | Mo % | 1.500 - 2.000 |
| Nickel | Ni % | 2.000 - 3.000 |
| Vanadium | V % | 0.250 - 0.400 |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

| Heat Treatment |
|---|
| As-Raw or Quenching & Tempering |

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 930 - 1130 |
| Proof Strength in Mpa | 760 min. |
| Elongation in % | - |
| Reduction of Area in % | 14 min. |
| Hardness in HB | - |
| Impact in Joule | - |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| S64152 | UNS | USA | Steel |
| A 565 S64152 | ASTM | USA | Steel and Bars |
| AMS 5719 | AMS | USA | Steel |
| S151 S 151 | B.S. | United Kingdom | Steel |
| S159 S 159 | B.S. | United Kingdom | Steel |
| S538 S 538 | B.S. | United Kingdom | Sheet and Strip |
| X 11 CrNiMoN 12 | DIN | Germany | Steel |

**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.