GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - BS EN 10269 X12CrNiMoV12-3 I 1.4938

## Standard Specification for Steel and Nickel Alloys for Fasteners with Specified Elevated and/or Low Temperature Properties

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - BS EN 10269 X12CrNiMoV12-3 I 1.4938 Steel and Nickel Alloys for Fasteners with Specified Elevated and/or Low Temperature Properties**

**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. |
| Chromium | Cr % | 11.000 - 12.500 |
| Molybdenum | Mo % | 1.500 - 2.000 |
| Nickel | Ni % | 2.000 - 3.000 |
| Vanadium | V % | 0.250 - 0.400 |
| Nitrogen | N % | 0.020 - 0.040 |
| 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 % | 14 min. |
| Reduction of Area in % | 40 min. |
| Hardness in HBW | - |
| Impact in Joule | 40 @ RT |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| S64152 | UNS | USA | Steel |
| S 151 | B.S. | United Kingdom | Steel |
| A 565 S64152 | ASTM | USA | Steel and Bars |
| 1.4933 | DIN | Germany | Steel |
| X 11 CrNiMoN 12 | DIN | Germany | Steel |
| 1.4938 | DIN | Germany | Steel |
| 4956 X 12 CrNiMoV 123 | ISO | International | 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.