GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - BS 1501-2 Grade 510

## Standard Specification for Alloy Steel and Plates

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - BS 1501-2 Grade 510 Alloy Steel and Plates**

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

**Grade Belongs to the Industry - Steel and Plates**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.100 max. |
| Silicon | Si % | 0.150 - 0.350 |
| Manganese | Mn % | 0.300 - 0.800 |
| Phosphorus | P % | 0.025 max. |
| Sulphur | S % | 0.015 max. |
| Chromium | Cr % | 0.300 max. |
| Molybdenum | Mo % | 0.100 max. |
| Nickel | Ni % | 8.750 - 9.500 |
| Copper | Cu % | 0.300 max. |
| Aluminium | Al % | 0.150 - 0.055 |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

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

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 690 min. |
| Yield Strength in Mpa | 590 min. |
| Elongation in % | 18 min. |
| Reduction of Area in % | - |
| Hardness in HBW | - |
| Impact in Joule | 196 @ RT |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| EN 10028-4 X 8 Ni 9 | B.S. | United Kingdom | Steel |
| 1503 509-690 | B.S. | United Kingdom | Steel |
| EN 10222-3 X 8 Ni 9 | DIN | Germany | Steel and Forging |
| EN 10028-4 X7Ni9 | DIN | Germany | Steel |
| 10222-3 1.5662 | EN | European Union | Steel and Forging |
| 10028-4 1.5663 | EN | European Union | Steel |
| 10222-3 X 8 Ni9 | EN | European Union | Steel and Forging |

**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.