GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - BS EN 10088-5 1.4542 (X5CrNiCuNb16-4)

## Standard Specification for Bars, Rods, Wire, Sections and Bright Products of Corrosion Resisting Steels for Construction Purposes

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - BS EN 10088-5 1.4542 (X5CrNiCuNb16-4) Bars, Rods, Wire, Sections and Bright Products of Corrosion Resisting Steels for Construction Purposes**

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

**Grade Belongs to the Industry - Bars, Rods and Wire**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.070 max. |
| Silicon | Si % | 0.700 max. |
| Manganese | Mn % | 1.500 max. |
| Phosphorus | P % | 0.040 max. |
| Sulphur | S % | 0.030 max. |
| Chromium | Cr % | 15.000 - 17.000 |
| Copper | Cu % | 3.000 - 5.000 |
| Molybdenum | Mo % | 0.600 max. |
| Nickel | Ni % | 3.000 - 5.000 |
| Niobium | Nb % | 0.005 - 0.450 |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

| Heat Treatment |
|---|
| As-Raw or Solution Annealing or precipitation Hardening |

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 1070 - 1270 |
| Proof Strength in Mpa | 1000 min. |
| Elongation in % | 10 min. |
| Reduction of Area in % | - |
| Hardness in HBW | 360 max. |
| Impact in Joule | 75 @ RT |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| EN 10088-1 X5CrNiCuNb16-4 | AFNOR NF | France | Steel |
| EN 10088-3 X5CrNiCuNb16-4 | AFNOR NF | France | Steel |
| EN 10088-2 X5CrNiCuNb16-4 | DIN | Germany | Steel |
| EN 10088-3 X5CrNiCuNb16-4 | DIN | Germany | Steel |
| EN 10088-1 X5CrNiCuNb16-4 | DIN | Germany | Steel |
| 10088-3 X 5 CrNiCuNb 16 4 | EN | European Union | Steel and Forging |
| 10088-2 X 5 CrNiCuNb 16 4 | EN | European Union | 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.