



Material - DIN 1.4550

Standard Specification for Seamless Steel Tubes for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - DIN 1.4550 Seamless Steel Tubes for Pressure Purposes

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

Grade Belongs to the Industry - Steel

| Chemical Composition | | | Heat Treatment | |
|----------------------|------|-----------------|-------------------------|---------------|
| Carbon | C % | 0.080 max. | Solution Annealing | |
| Silicon | Si % | 1.000 max. | | |
| Manganese | Mn % | 2.000 max. | | |
| Phosphorus | P % | 0.045 max. | | |
| Sulphur | S % | 0.015 max. | | |
| Chromium | Cr % | 17.000 - 19.000 | | |
| Nickel | Ni % | 9.000 - 12.000 | | |
| Niobium | Nb % | 1.000 max. | | |
| Iron | Fe % | Balance | Mechanical Properties | |
| - | - | - | Tensile Strength in Mpa | 500 - 1053.3 |
| - | - | - | Yield Strength in Mpa | 200 min. |
| - | - | - | Elongation in % | 4.1 - 64.9 |
| - | - | - | Reduction of Area in % | 69.3 - 76.257 |
| - | - | - | Hardness in HB | 230 max. |
| - | - | - | Impact in Joule | 39.1 J @ RT |

| Cross Reference Table | | | |
|-----------------------|----------|----------------|------------------------------|
| Material | Standard | Country | Grade Belong to the Industry |
| 1.4550 | EN | European Union | Tube |
| 1.455 | DIN | Germany | Steel |
| X6CrNiNb18 10 | DIN | Germany | Steel and Tube |
| X6CrNiNb18 10 | ISO | International | Steel, Forging and Bar |
| X6CrNiNb18 10S | ONORM | Australia | Steel |
| X6CrNiNb18 10 | AFNOR NF | France | Steel, Bar and Rods |
| Z8CENb18-10 | AFNOR NF | France | 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.