



Material - DIN 1.4580

Standard Specification for Seemless Steel Tubes for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - DIN 1.4580 Seemless Steel Tubes for Pressure Purposes

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

Grade Belongs to the Industry - Steel, Sheet, Plate and Strip

| Chemical Composition | | | Heat Treatment | |
|----------------------|------|-----------------|-------------------------------|-----------|
| Carbon | С% | 0.080 max. | | |
| Silicon | Si % | 1.000 max. | | |
| Manganese | Mn % | 2.000 max. | | |
| Phosphorus | P % | 0.040 max. | Solution Annealing | |
| Sulphur | S % | 0.015 max. | | |
| Chromium | Cr % | 16.500 - 18.500 | | |
| Molybdenum | Mo % | 2.000 - 2.500 | | |
| Nickel | Ni % | 10.500 - 13.500 | | • |
| Niobium | Nb % | 1.000 max. | Mechanical Properties | |
| Iron | Fe % | Balance | Tensile Strength in Mpa | 510 - 740 |
| - | - | - | Yield Strength in Mpa | 215 min. |
| - | - | - | Elongation in % | 30 min. |
| - | - | - | Reduction of Area in % | - |
| - | - | | Hardness in HB | 230 max. |
| - | - | - | Impac <mark>t in Joule</mark> | 55 J @ RT |

| Cross Reference Table | | | | |
|-----------------------|----------|----------------|-----------------------------------|--|
| Material | Standard | Country | Grade Belong to the Industry | |
| 1.4580 | EN | European Union | Tube | |
| 10216-5 | BS | British | Steel, Sheet, Plate and Strip | |
| X6CrNiMoNb17 12 2 | DIN | Germany | Steel, Sheet, Plate and Strip | |
| X6CrNiMoNb17 12 2 | UNE | Spain | Steel, Bar, Wire, Rod and Forging | |
| X6CrNiMoNb17 12 2 KKW | ONORM | Australia | Steel | |
| X6CrNiMoNb17-12-2 | AFNOR NF | France | Steel, Bar and Rods | |
| 318 S 17 | BS | British | Steel and Wire | |

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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