**This page is mainly introduced the 1.4301 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4301,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Steel Grades Specialsteel 1.4301

| 1.4301 Standard Number: | | |
|---|---|---|
| ITEM | Standard Number | Descriptions |
| 1 | NF EN 10028-7 | Flat products made of steels for pressure purposes - Part 7: Stainless steels |
| 2 | NF EN 10088-1 | Stainless steels - Part 1: List of stainless steels |
| 3 | NF EN 10088-2 | Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes |
| 4 | NF EN 10088-3 | Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes |
| 5 | NF EN 10088-4 | Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes |
| 6 | NF EN 10088-5 | Stainless steels - Part 5: Technical delivery conditions for bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes |
| 7 | NF EN 10151 | Stainless steel strip for springs - Technical delivery conditions |
| 8 | NF EN 10216-5 (2004) | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 5: Stainless steel tubes |
| 9 | NF EN 10217-7 | Welded steel tubes for pressure purposes - Technical delivery conditions - Part 7: Stainless steel tubes |
| 10 | NF EN 10222-5 | Steel forgings for pressure purposes - Part 5: Martensitic, austenitic and austenitic-ferritic stainless steels |
| 11 | NF EN 10250-4 | Open die steel forgings for general engineering purposes - Part 4: Stainless steels |
| 12 | NF EN 10253-3 | Butt-welding pipe fittings - Part 3: Wrought austenitic and austenitic-ferritic (duplex) stainless steels without specific inspection requirements |
| 13 | NF EN 10253-4 | Butt-welding pipe fittings - Part 4: Wrought austenitic and austenitic-ferritic (duplex) stainless steels with specific inspection requirements |
| 14 | NF EN 10263-5 | Steel rod, bars and steel wire for cold heading and cold extrusion - Part 5: Technical delivery conditions for stainless steels |
| 15 | NF EN 10264-4 (2002) | Steel wire and wire products - Steel wire for ropes - Part 4: Stainless steel wire |
| 16 | NF EN 10269 | Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties |
| 17 | NF EN 10272 | Stainless steel bars for pressure purposes |
| 18 | NF EN 10296-2 (2005) | Welded circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel |
| 19 | NF EN 10297-2 (2005) | Seamless circular steel tubes for mechanical and general engineering purposes - |

| | | |
|---|---|---|
| | | Technical delivery conditions - Part 2: Stainless steel |

## 1.4301 Chemical composition(mass fraction)(wt.%)

| Chemical | Min.(%) | Max.(%) |
|---|---|---|
| C | | 0.070 |
| Si | | 1.00 |
| Mn | | 2.00 |
| P | | 0.045 |
| S | | 0.015 |
| Cr | 17.00 | 19.50 |
| Mo | | |
| Ni | 8.00 | 10.50 |
| N | | 0.11 |

| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Seamless circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel

## 1.4301 Physical Properties

| | | |
|---|---|---|
| Tensile strength | 115-234 | σb/MPa |
| Yield Strength | 23 | σ 0.2 ≥/MPa |
| | | |

| | | |
|---|---|---|
| Elongation | 65 | δ5≥ (%) |
| ψ | - | ψ≥ (%) |
| Akv | - | Akv≥/J |
| HBS | 123-321 | - |
| HRC | 30 | - |

| 1.4301 Mechanical Properties | | |
|---|---|---|
| Tensile strength | 231-231 | σb/MPa |
| Yield Strength | 154 | σ 0.2 ≥/MPa |
| Elongation | 56 | δ5≥(%) |
| ψ | - | ψ≥(%) |
| Akv | - | Akv≥/J |
| HBS | 235-268 | - |
| HRC | 30 | - |

| 1.4301 Heat Treatment Regime | | | | |
|---|---|---|---|---|
| **Annealing** | **Quenching** | **Tempering** | **Normalizing** | **Q & T** |
| √ | √ | √ | √ | √ |

| 1.4301 Range of products | | | | |
|---|---|---|---|---|
| Product type | Products | Dimension | Processes | Deliver Status |
| Plates / Sheets | Plates / Sheets | 0.08-200mm(T)*W*L | Forging, hot rolling and cold rolling | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Steel Bar | Round Bar, Flat Bar, Square Bar | Φ8-1200mm*L | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, Shot Blasting, |
| Coil / Strip | Steel Coil /Steel Strip | 0.03-16.0x1200mm | Cold-Rolled & Hot-Rolled | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Pipes / Tubes | Seamless Pipes/Tubes, Welded Pipes/Tubes | OD:6-219mm x WT:0.5-20.0mm | Hot extrusion, Cold Drawn, Welded | Annealed, Solution and Aging, Q+T, ACID-WASHED |

## We can produce Specialsteel the specifications follows: