

This page is mainly introduced the X5CrNiMo17-13 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X5CrNiMo17-13, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel X5CrNiMo17-13

| X5CrNiMo17-13 Standard Number: | | |
|--------------------------------|-------------------|---|
| ITEM | Standard Number | Descriptions |
| 1 | ISO 9327-5 (1999) | Steel forgings and rolled or forged bars for pressure purposes - Technical delivery conditions - Part 5: Stainless steels |
| 2 | ISO 9329-4 (1997) | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 4: Austenitic stainless steels |
| 3 | ISO 9330-6 (1997) | Welded steel tubes for pressure purposes - Technical delivery conditions - Part 6: Longitudinally welded austenitic stainless steel tubes |
| 4 | ISO 9328-5 | Steel plates and strips for pressure purposes - Technical delivery conditions - Part 5: Weldable fine grain steels, thermomechanically rolled |

| X5CrNiMo17-13 Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|---|----|----|----|---------|----|----|---------|----|-------|
| Chemical | | | | Min.(%) | | | Max.(%) | | |
| C | | | | | | | 0.07 | | |
| Si | | | | | | | 1.00 | | |
| Mn | | | | | | | 2.00 | | |
| P | | | | | | | 0.045 | | |
| S | | | | | | | 0.030 | | |
| Cr | | | | 16.50 | | | 18.50 | | |
| Mo | | | | 11.00 | | | 14.00 | | |
| Ni | | | | 2.50 | | | 3.00 | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Welded steel tubes for pressure purposes - Technical delivery conditions - Part 6: Longitudinally welded austenitic stainless steel

tubes

X5CrNiMo17-13 Physical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | σ_b /MPa |
| Yield Strength | 23 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 65 | $\delta 5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

X5CrNiMo17-13 Mechanical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | σ_b /MPa |
| Yield Strength | 154 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 56 | $\delta 5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 235-268 | - |
| HRC | 30 | - |

X5CrNiMo17-13 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|-----------|-----------|-----------|-------------|-------|
| √ | √ | √ | √ | √ |

X5CrNiMo17-13 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: