

This page is mainly introduced the 1Cr17Ni2 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr17Ni2, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1Cr17Ni2

| 1Cr17Ni2 Standard Number: | | |
|---------------------------|------------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | GB 2270 (1980) | Seamless tubes |
| 2 | GB/T 1220 (1992) | Stainless steel bars |
| 3 | GB/T 1221 (1992) | Heat-resisting steel bars |
| 4 | GB/T 3280 (1992) | Cold rolled stainless steel sheets and plates |
| 5 | GB/T 4240 (1993) | Stainless steel wires |
| 6 | GB/T 4356 (2002) | Stainless steel wire rods |
| 7 | JB/T 6398 (2006) | Heavy stainless acid resistant and heat resistant steel forgings |

| 1Cr17Ni2 Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|--|----|---------|----|----|---------|----|----|----|-------|
| Chemical | | Min.(%) | | | Max.(%) | | | | |
| C | | 0.11 | | | 0.17 | | | | |
| Si | | | | | 0.80 | | | | |
| Mn | | | | | 0.80 | | | | |
| P | | | | | 0.035 | | | | |
| S | | | | | 0.030 | | | | |
| Ni | | 1.50 | | | 2.50 | | | | |
| Cr | | 16.00 | | | 18.00 | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

1Cr17Ni2



1Cr17Ni2 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 | - |

1Cr17Ni2 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 | - |

1Cr17Ni2 Heat Treatment Regime

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

1Cr17Ni2 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: