

This page is mainly introduced the 1Cr17 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr17, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1Cr17

| 1Cr17 Standard Number: | | |
|------------------------|-------------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | GB 13296 (2007) | Seamless stainless steel tubes for boiler and heat exchanger |
| 2 | GB 4238 (1992) | Heat-resisting steel sheets and plates |
| 3 | GB/T 1220 (1992) | Stainless steel bars |
| 4 | GB/T 1221 (1992) | Heat-resisting steel bars |
| 5 | GB/T 12770 (2002) | Welded stainless steel tubes for machine structures |
| 6 | GB/T 14975 (2002) | Stainless steel seamless tubes for structures |
| 7 | GB/T 14976 (2002) | Stainless steel seamless tubes for fluid transport |
| 8 | GB/T 3280 (2007) | Cold rolled stainless steel sheets and plates |
| 9 | GB/T 4226 (2004) | Cold finished stainless steel bars |
| 10 | GB/T 4237 (1992) | Hot rolled stainless steel sheets and plates |
| 11 | GB/T 4239 (1991) | Cold rolled stainless steel and heat resisting steel strips |
| 12 | GB/T 4240 (1993) | Stainless steel wires |
| 13 | GB/T 4356 (2002) | Stainless steel wire rods |

| 1Cr17 Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|---|----|---------|---|---|----|---------|----|---|----|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.12 | | | |
| Si | | | | | | 0.75 | | | |
| Mn | | | | | | 1.00 | | | |
| P | | | | | | 0.035 | | | |
| S | | | | | | 0.030 | | | |
| Ni | | | | | | 0.60 | | | |
| 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 |
|---|---|----|----|----|---|----|----|----|-------|
| | | | | | | | | | |

1Cr17

1Cr17 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 | - |

1Cr17 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 | - |

1Cr17 Heat Treatment Regime

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

1Cr17 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: