

This page is mainly introduced the 00Cr12 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 00Cr12, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 00Cr12

| 00Cr12 Standard Number: | | |
|-------------------------|------------------|---|
| ITEM | Standard Number | Descriptions |
| 1 | GB 4238 (1992) | Heat-resisting steel sheets and plates |
| 2 | GB/T 1220 (1992) | Stainless steel bars |
| 3 | GB/T 1221 (1992) | Heat-resisting steel bars |
| 4 | GB/T 3280 (2007) | Cold rolled stainless steel sheets and plates |
| 5 | GB/T 4237 (1992) | Hot rolled stainless steel sheets and plates |
| 6 | GB/T 4239 (1991) | Cold rolled stainless steel and heat resisting steel strips |

| 00Cr12 Chemical composition (mass fraction) (wt.%) | | | | | | | | | |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.030 | | | |
| Si | | | | | | 1.00 | | | |
| Mn | | | | | | 1.00 | | | |
| P | | | | | | 0.04 | | | |
| S | | | | | | 0.03 | | | |
| Cr | | 11.00 | | | | 13.00 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

00Cr12

| 00Cr12 Physical Properties | | |
|----------------------------|---------|--------|
| Tensile strength | 115-234 | σb/MPa |

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

00Cr12 Mechanical Properties

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

00Cr12 Heat Treatment Regime

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

00Cr12 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 | $\Phi 8$ -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: