

This page is mainly introduced the ISO 16 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of ISO 16, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel ISO 16

| ISO 16 Standard Number: | | |
|-------------------------|---------------------|---|
| ITEM | Standard Number | Descriptions |
| 1 | ISO 15510 (2010) | Stainless steels -- Chemical composition |
| 2 | ISO 16143-1 (2004) | Stainless steels for general purposes -- Part 1: Flat products |
| 3 | ISO 16143-2 (2004) | Stainless steels for general purposes -- Part 2: Semi-finished products, bars, rods and sections |
| 4 | ISO 9327-5 | Steel forgings and rolled or forged bars for pressure purposes - Technical delivery conditions - Part 5: Stainless steels |
| 5 | ISO 9328-5 | Steel plates and strips for pressure purposes - Technical delivery conditions - Part 5: Weldable fine grain steels, thermomechanically rolled |
| 6 | ISO 9328-7 (2011) | Steel flat products for pressure purposes - Technical delivery conditions - Part 7: Stainless steels |
| 7 | ISO 9329-4 | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 4: Austenitic stainless steels |
| 8 | ISO 9330-6 | Welded steel tubes for pressure purposes - Technical delivery conditions - Part 6: Longitudinally welded austenitic stainless steel tubes |
| 9 | ISO/TS 15510 (2003) | Stainless steels - Chemical composition |

| ISO 16 Chemical composition(mass fraction)(wt.%) | | |
|--|---------|---------|
| Chemical | Min.(%) | Max.(%) |
| C | | 0.08 |
| Si | | 1.00 |
| Mn | | 2.00 |
| P | | 0.045 |
| S | | 0.030 |
| Cr | 17.00 | 19.00 |
| Ni | 9.00 | 12.00 |
| Mo | | |
| N | | |
| Nb | 10×C□ | 1.00 |

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

Stainless steels - Chemical composition

ISO 16 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 | - |

ISO 16 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 | - |

ISO 16 Heat Treatment Regime

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

ISO 16 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: