

This page is mainly introduced the 1.4910 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4910, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.4910

| 1.4910 Standard Number: | | |
|-------------------------|----------------------|---|
| ITEM | Standard Number | Descriptions |
| 1 | NF EN 10028-7 | Flat products made of steels for pressure purposes - Part 7: Stainless steels |
| 2 | NF EN 10088-1 | Stainless steels - Part 1: List of stainless steels |
| 3 | NF EN 10216-5 (2004) | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 5: Stainless steel tubes |
| 4 | NF EN 10222-5 | Steel forgings for pressure purposes - Part 5: Martensitic, austenitic and austenitic-ferritic stainless steels |
| 5 | NF EN 10269 | Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties |
| 6 | NF EN 10302 (2002) | Creep resisting steels, nickel and cobalt alloys |

| 1.4910 Chemical composition (mass fraction) (wt.%) | | | | | | | | | |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.040 | | | |
| Si | | | | | | 0.75 | | | |
| Mn | | | | | | 2.00 | | | |
| P | | | | | | 0.035 | | | |
| S | | | | | | 0.015 | | | |
| Cr | | 16.00 | | | | 18.00 | | | |
| Ni | | 12.00 | | | | 14.00 | | | |
| Mo | | 2.00 | | | | 3.00 | | | |
| N | | 0.10 | | | | 0.18 | | | |
| B | | 0.0015 | | | | 0.0050 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Creep resisting steels, nickel and cobalt alloys

1.4910 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 | - |

1.4910 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 | - |

1.4910 Heat Treatment Regime

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

1.4910 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, | Φ8-1200mm*L | Forging, hot rolling and | Black, Rough Turning, |

| | | | | |
|---------------|--|----------------------------|-----------------------------------|---|
| | Square Bar | | cold rolling, Cast | 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: