This page is mainly introduced the S30815 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of S30815, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Data Table for Grades Stainless Steels S30815

| S30815 Standard Number: |                 |              |  |  |
|-------------------------|-----------------|--------------|--|--|
| ITEM                    | Standard Number | Descriptions |  |  |

| S30815 Chemical composition(mass fraction)(wt.%) |         |         |  |  |
|--|---------|---------|--|--|
| Chemical   | Min.(%) | Max.(%) |  |  |
| С  | 0.05    | 0.10    |  |  |
| Mn   |         | 0.80    |  |  |
| Si   | 1.40    | 2.00    |  |  |
| Р  |         | 0.04    |  |  |
| S  |         | 0.03    |  |  |
| Cr   | 20.00   | 22.00   |  |  |
| Ni   | 10.00   | 12.00   |  |  |
| Мо   |         |         |  |  |
| AI   |         | 1.00    |  |  |
| Ce   | 0.03    | 0.08    |  |  |

| S30815 Physical Properties |         |             |  |
|----------------------------|---------|-------------|--|
| Tensile strength           | 115-234 | σb/MPa      |  |
| Yield Strength             | 23      | σ 0.2 ≥/MPa |  |
| Elongation                 | 65      | δ5≥ (%)     |  |
| ψ                          | -       | ψ≥ (%)      |  |
| Akv                        | -       | Akv≥/J      |  |
| HBS                        | 123-321 | -           |  |
| HRC                        | 30      | -           |  |

| S30815 Mechanical Properties |         |             |  |
|------------------------------|---------|-------------|--|
| Tensile strength             | 231-231 | σb/MPa      |  |
| Yield Strength               | 154     | σ 0.2 ≥/MPa |  |



## S30815 Chemical information, Mechanical properties

Physical properties, Mechanical properties, Heat treatment, and Micro structure

| Elongation | 56      | δ5≥(%) |  |
|------------|---------|--------|--|
| Ψ          | -       | ψ≥(%)  |  |
| Akv        | -       | Akv≥/J |  |
| HBS        | 235-268 | -      |  |
| HRC        | 30      | -      |  |

| S30815 Heat Treatment Regime |              |              |              |              |
|------------------------------|--------------|--------------|--------------|--------------|
| Annealing                    | Quenching    | Tempering    | Normalizing  | Q & T        |
|                              | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

| S30815 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<br>Aging, Q+T, ACID-<br>WASHED, Shot Blasting |
| Steel Bar                | Round Bar, Flat Bar,<br>Square Bar          | Φ8-1200mm*L                   | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning,<br>Shot Blasting,                              |
| Coil / Strip             | Steel Coil /Steel Strip                     | 0.03-16.0x1200mm              | Cold-Rolled & Hot-<br>Rolled                | Annealed, Solution and<br>Aging, Q+T, ACID-<br>WASHED, Shot Blasting |
| Pipes / Tubes            | Seamless Pipes/Tubes,<br>Welded Pipes/Tubes | OD:6-219mm x<br>WT:0.5-20.0mm | Hot extrusion, Cold<br>Drawn, Welded        | Annealed, Solution and<br>Aging, Q+T, ACID-<br>WASHED                |

## We can produce Stainless Steels the specifications follows:

Note:

(1) listed in the table apex diameter (d), to steel thickness (a) multiples said.

(2) in the ASTM A6 standard specified scope can meet any additional conditions.

(3) from the standard for 50 mm (2 in).

Mechanical properties

Mechanische Eigenschaften

Caracteristiques mecaniques

ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'elasticite minimale

Rm Tensile strength / Zugfestigkeit / Resistance a la traction

A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal

J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc

Round bar: Diameter : 1mm-2000mm Square bar: Size: 50mm \* 50mm-600mm \*600mm Plate steel/flat bar:



Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm
Tube/pipe:
Size: OD: 6-219mm WT: 1-35 mm.
Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm
Hot-rolled sheet: Thickness: 6-80mm Width: 210-610mm
Length: We can supply any length based on the customer's requirement.
Forging/hot rolling/ extrusion of steel.
Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes
Finished goods condition: hot forging/hot rolling + annealing/normalizing + tempering/quenching + tempering/any
conditions based on the customer's requirement
Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on the customer's requirement
Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.
Ultrasonic inspection: 100% ultrasonic inspection for any inperfections or based on the customer's requirement.
UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402

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