

Micro structure

This page is mainly introduced the Z3CND18-14-03 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Z3CND18-14-03, 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 Z3CND18-14-03

| Z3CND18-14-03 Standard Number: | | | |
|--------------------------------|-----------------|---|--|
| ITEM | Standard Number | Descriptions | |
| 1 | NF A 35-573 | Stainless steels for general purposes. Plates, wide strips and strips | |
| 2 | NF A 35-574 | Iron and steel. Stainless steel for general purposes. Semi- finished products, bars and wire rod | |

| Z3CND18-14-03 C | Z3CND18-14-03 Chemical composition(mass fraction)(wt.%) | | | |
|-----------------|---|---------|--|--|
| Chemical | Min.(%) | Max.(%) | | |
| С | | 0.030 | | |
| Si | | 0.75 | | |
| Mn | | 2.00 | | |
| Р | | 0.040 | | |
| S | | 0.015 | | |
| Cr | 17.00 | 19.00 | | |
| Мо | 2.50 | 3.00 | | |
| Ni | 12.50 | 14.50 | | |

| Z3CND18-14-03 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 | - | |

Z3CND18-14-03 Chemical information, Mechanical properti

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

| Z3CND18-14-03 Mechanical Properties | | | |
|-------------------------------------|---------|-------------|--|
| Tensile strength | 231-231 | σb/MPa | |
| Yield Strength | 154 | σ 0.2 ≥/MPa | |
| Elongation | 56 | δ5≥(%) | |
| Ψ | - | ψ≥(%) | |
| Akv | - | Akv≥/J | |
| HBS | 235-268 | - | |
| HRC | 30 | - | |

| Z3CND18-14-03 Heat Treatment Regime | | | | |
|-------------------------------------|-----------|-----------|-------------|-------|
| Annealing | Quenching | Tempering | Normalizing | Q & T |
| √ | √ | √ | √ | √ |

| Z3CND18-14-03 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 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



Z3CND18-14-03 Chemical information, Mechanical properti

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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

Excellent service for all kinds of industries, with advantages of technologies, equipment and price.

We serve you with our honesty, integrity, and professionality.

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