

This page is mainly introduced the Z7CND17-11-02 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Z7CND17-11-02, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel **Z7CND17-11-02**

|      | Z7CND17-11-02 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<br>and wire rod   |  |  |  |
| 3    | NF A 36-209                    | Iron and steel. Austenitic and austenic-ferritic stainless steels plates for boilers<br>and pressure vessels  |  |  |  |
| 4    | NF A 49-244                    | Steel tubes - Welded austenitic stainless and austenitic ferritic steel rolled tubes for pressure service - Dimensions, technical conditions for delivery |  |  |  |
| 5    | NF E 29-043                    | Non alloy and alloy steel bolting for pressure equipement - Specifications  |  |  |  |

| Z7CND17-11-02 Chemical composition(mass fraction)(wt.%) |    |    |    |             |    |       |         |    |    |       |
|---|----|----|----|-------------|----|-------|---------|----|----|-------|
| Chemical  |    |    |    | Min.(%)     |    |       | Max.(%) |    |    |       |
|   | С  |    |    |             |    |       | 0.070   |    |    |       |
| Si  |    |    |    | 0.75        |    |       |         |    |    |       |
| Mn  |    |    |    | 2.00        |    |       |         |    |    |       |
|   | Р  |    |    |             |    | 0.040 |         |    |    |       |
| S   |    |    |    | 0.015       |    |       |         |    |    |       |
| Cr  |    |    |    | 16.00       |    |       | 18.00   |    |    |       |
|   | Мо |    |    | 2.00        |    |       | 2.50    |    |    |       |
|   | Ni |    |    | 10.00 12.00 |    |       |         |    |    |       |
| С   | Si | Mn | Р  | S           | Cr | Ni    | Mo V Ta |    | Та |       |
|   |    |    |    |             |    |       |         |    |    |       |
| W   | N  | Cu | Со | Pb          | В  | Nb    |         | Al | Ti | Other |
|   |    |    |    |             |    |       |         |    |    |       |

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

Non alloy and alloy steel bolting for pressure equipement - Specifications

| Z7CNE            | erties  |             |
|------------------|---------|-------------|
| Tensile strength | 115-234 | σb/MPa      |
| Yield Strength   | 23      | σ 0.2 ≥/MPa |
| Elongation       | 65      | δ5≥ (%)     |
| Ψ                | -       | ψ≥ (%)      |
| Akv              | -       | Akv≥/J      |
| HBS              | 123-321 | <u>-</u>    |
| HRC              | 30      | -           |

| Z7CND17-11-02 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      | -           |  |  |  |

| Z7CND17-11-02 Heat Treatment Regime  |   |   |   |       |  |
|--------------------------------------|---|---|---|-------|--|
| Annealing Quenching Tempering Normal |   |   |   | Q & T |  |
| V                                    | √ | √ | √ | √     |  |

| Z7CND17-11-02 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, | Ф8-1200mm*L       | Forging, hot rolling and              | Black, Rough Turning,  |  |



## Steel GradesZ7CND17-11-02 Chemical information, Mechanical properties

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

|               | Square Bar                                  |                               | cold rolling, Cast                   | 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 Specialsteel the specifications follows: