

This page is mainly introduced the 302B Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 302B, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel 302B

| 302B Standard Number: |                     |   |
|-----------------------|---------------------|---|
| ITEM                  | Standard Number     | Descriptions  |
| 1                     | A 167 (2009)        | Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip                        |
| 2                     | A 276 (2010)        | Stainless Steel Bars and Shapes   |
| 3                     | A 314 (2008)        | Stainless Steel Billets and Bars for Forging  |
| 4                     | A 473 (2009)        | Stainless Steel Forgings  |
| 5                     | A 580/A 580M (2012) | Stainless Steel Wire  |
| 6                     | A 959 (2011)        | Standard Guide for Specifying Harmonized Standard Grade Compositions for Wrought Stainless Steels |

| 302B Chemical composition(mass fraction)(wt.%) |    |         |    |    |    |         |    |    |       |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical                                       |    | Min.(%) |    |    |    | Max.(%) |    |    |       |
| C  |    |         |    |    |    | 0.15    |    |    |       |
| Si   |    | 2.00    |    |    |    | 3.00    |    |    |       |
| Mn   |    |         |    |    |    | 2.00    |    |    |       |
| P  |    |         |    |    |    | 0.045   |    |    |       |
| S  |    |         |    |    |    | 0.03    |    |    |       |
| Cr   |    | 17.0    |    |    |    | 19.0    |    |    |       |
| Ni   |    | 8.00    |    |    |    | 10.0    |    |    |       |
| C  | Si | Mn      | P  | S  | Cr | Ni      | Mo | V  | Ta    |
| W  | N  | Cu      | Co | Pb | B  | Nb      | Al | Ti | Other |
|  |    |         |    |    |    |         |    |    |       |

Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip



### 302B Physical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength   | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation       | 65      | $\delta_5 \geq$ (%)      |
| $\psi$           | -       | $\psi \geq$ (%)          |
| Akv              | -       | Akv $\geq$ /J            |
| HBS              | 123-321 | -                        |
| HRC              | 30      | -                        |

### 302B Mechanical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength   | 154     | $\sigma_{0.2} \geq$ /MPa |
| Elongation       | 56      | $\delta_5 \geq$ (%)      |
| $\psi$           | -       | $\psi \geq$ (%)          |
| Akv              | -       | Akv $\geq$ /J            |
| HBS              | 235-268 | -                        |
| HRC              | 30      | -                        |

### 302B Heat Treatment Regime

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

### 302B 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:**