

This page is mainly introduced the 1.8933 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.8933, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Special Steel 1.8933

### 1.8933 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--------------|
|------|-----------------|--------------|

### 1.8933 Chemical composition (mass fraction) (wt.%)

| Chemical |        |      | Min.(%) |       |        |       | Max.(%) |       |                |
|----------|--------|------|---------|-------|--------|-------|---------|-------|----------------|
| C        | Si     | Mn   | P       | S     | Cr     | Ni    | Mo      | V     | Ta             |
| ≤0.2     | ≤0.8   | ≤1.7 | ≤0.02   | ≤0.01 | ≤1.5   | ≤2.00 | ≤0.7    | ≤0.12 |                |
| W        | N      | Cu   | Co      | Pb    | B      | Nb    | Al      | Ti    | Other          |
|          | ≤0.015 | ≤0.5 |         |       | ≤0.005 | ≤0.06 |         | ≤0.05 | CEV: ≤0.8<br>2 |

Hot rolled products of structural steels. Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition

### 1.8933 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      | -                        |

### 1.8933 Mechanical Properties

|                  |         |                 |
|------------------|---------|-----------------|
| Tensile strength | 231-231 | $\sigma_b$ /MPa |
|------------------|---------|-----------------|

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

### 1.8933 Heat Treatment Regime

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

### 1.8933 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          | $\Phi 8$ -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 Special Steel the specifications follows:**