

This page is mainly introduced the S21500 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of S21500, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel S21500

### S21500 Standard Number:

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

### S21500 Chemical composition (mass fraction) (wt.%)

| Chemical | Min.(%) | Max.(%) |
|----------|---------|---------|
| C        | 0.06    | 0.15    |
| Si       | 0.20    | 1.20    |
| Mn       | 5.50    | 7.50    |
| P        |         | 0.04    |
| S        |         | 0.03    |
| Cr       | 14.0    | 16.0    |
| Ni       | 9.00    | 11.0    |
| Mo       | 0.80    | 1.02    |
| Nb       | 0.75    | 1.25    |
| V        | 0.15    | 0.40    |
| B        | 0.003   | 0.009   |

  

|   |    |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|----|-------|
| C | Si | Mn | P  | S  | Cr | Ni | Mo | V  | Ta    |
| W | N  | Cu | Co | Pb | B  | Nb | Al | Ti | Other |

## S21500

### S21500 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      | -                   |

| S21500 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      | -                        |

| S21500 Heat Treatment Regime |           |           |             |       |
|------------------------------|-----------|-----------|-------------|-------|
| Annealing                    | Quenching | Tempering | Normalizing | Q & T |
| √                            | √         | √         | √           | √     |

| S21500 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 Specialsteel the specifications follows:**