

This page is mainly introduced the SUS420J1 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SUS420J1, 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 SUS420J1

SUS420J1 Standard Number:

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

SUS420J1 Chemical composition (mass fraction) (wt.%)

| Chemical | | | Min.(%) | | | | Max.(%) | | | |
|-----------|----------|----------|----------|----------|----------------|----------|---------|----|-------|--|
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| 0.16-0.25 | Max 1.00 | Max 1.00 | Max 0.06 | Max 0.03 | 12.0-14.0 v | Max 0.60 | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| | | | | | | | | | | |

SUS420J1

SUS420J1 Physical Properties

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

SUS420J1 Mechanical Properties

| | | |
|------------------|---------|-----------------|
| Tensile strength | 231-231 | σ_b /MPa |
| | | |

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

SUS420J1 Heat Treatment Regime

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

SUS420J1 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: