

This page is mainly introduced the 4422 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 4422, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Data Table for Grades Stainless Steels 4422

| 4422 Standard Number: |                   |                                                                 |
|-----------------------|-------------------|-----------------------------------------------------------------|
| ITEM                  | Standard Number   | Descriptions                                                    |
| 1                     | SAE J 1397 (1992) | Estimated mechanical properties and machinability of steel bars |

| 4422 Chemical composition(mass fraction)(wt.%) |         |           |
|------------------------------------------------|---------|-----------|
| Chemical                                       | Min.(%) | Max.(%)   |
| C                                              |         | 0.22      |
| Si                                             |         | 0.40      |
| Mn                                             |         | 0.75      |
| P                                              |         |           |
| S                                              |         |           |
| Ni                                             |         | 0.75      |
| Cr                                             |         | 12.50     |
| Al                                             |         |           |
| Cu                                             |         |           |
| Ti                                             |         |           |
| Fe                                             |         | remaining |
| N                                              |         |           |
| Mo                                             |         | 1.00      |
| W                                              |         | 1.00      |
| V                                              |         | 0.22      |

| 4422 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 | - |
|-----|----|---|

### 4422 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      | -                        |

### 4422 Heat Treatment Regime

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

### 4422 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 Stainless Steels the specifications follows:**