

This page is mainly introduced the UNS J03003 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of UNS J03003, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Special Alloy UNS J03003

| UNS J03003 Standard Number: |                 |              |
|-----------------------------|-----------------|--------------|
| ITEM                        | Standard Number | Descriptions |

| UNS J03003 Chemical composition (mass fraction) (wt.%) |          |          |           |           |          |          |          |          |       |
|--|----------|----------|-----------|-----------|----------|----------|----------|----------|-------|
| Chemical   |          |          | Min.(%)   |           |          |          | Max.(%)  |          |       |
| C  | Si       | Mn       | P         | S         | Cr       | Ni       | Mo       | V        | Ta    |
| Max 0.30   | Max 0.60 | Max 1.00 | Max 0.040 | Max 0.045 | Max 0.50 | Max 0.50 | Max 0.20 | Max 0.03 |       |
| W  | N        | Cu       | Co        | Pb        | B        | Nb       | Al       | Ti       | Other |
|  |          | Max 0.30 |           |           |          |          |          |          |       |

### UNS J03003

| UNS J03003 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      | -                        |

| UNS J03003 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      | -                    |

### UNS J03003 Heat Treatment Regime

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

### UNS J03003 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 Alloy the specifications follows:**