

This page is mainly introduced the STS304J3 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of STS304J3, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel STS304J3

| STS304J3 Standard Number: | | |
|---------------------------|-----------------|------------------------------------|
| ITEM | Standard Number | Descriptions |
| 1 | D 3692 (2001) | Cold finished stainless steel bars |
| 2 | D 3702 (2008) | Stainless steel wire rods |
| 3 | D 3703 (2007) | Stainless steel wires |
| 4 | D 3706 (2008) | Stainless steel bars |

| STS304J3 Chemical composition (mass fraction) (wt.%) | | | | | | | | | |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.08 | | | |
| Si | | | | | | 1.00 | | | |
| Mn | | | | | | 2.00 | | | |
| P | | | | | | 0.045 | | | |
| S | | | | | | 0.030 | | | |
| Cr | | 17.00 | | | | 19.00 | | | |
| Ni | | 8.00 | | | | 10.50 | | | |
| Mo | | | | | | | | | |
| N | | | | | | | | | |
| Cu | | 1.00 | | | | 3.00 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Stainless steel bars

STS304J3 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 | - |

STS304J3 Mechanical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | σ_b /MPa |
| Yield Strength | 154 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 56 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 235-268 | - |
| HRC | 30 | - |

STS304J3 Heat Treatment Regime

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

STS304J3 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, | Φ 8-1200mm*L | Forging, hot rolling and | Black, Rough Turning, |

| | | | | |
|---------------|--|----------------------------|-----------------------------------|---|
| | Square Bar | | cold rolling, Cast | 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: