

This page is mainly introduced the STS430F Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of STS430F, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel STS430F

STS430F 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 |
| 5 | D 7202 (2004) | Free - machining stainless steel wire and wire rods |

STS430F Chemical composition (mass fraction) (wt.%)

| Chemical | Min.(%) | | | | | Max.(%) | | | | |
|----------|---------|----|----|----|----|---------|----|----|-------|--|
| C | | | | | | 0.12 | | | | |
| Si | | | | | | 1.00 | | | | |
| Mn | | | | | | 1.25 | | | | |
| P | | | | | | 0.060 | | | | |
| S | | | | | | 0.15 | | | | |
| Cr | 16.00 | | | | | 18.00 | | | | |
| Ni | | | | | | 0.60 | | | | |
| Mo | | | | | | | | | | |
| N | | | | | | | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| | | | | | | | | | | |

Free - machining stainless steel wire and wire rods

STS430F 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 | - |

STS430F 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 | - |

STS430F Heat Treatment Regime

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

STS430F 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, | Φ8-1200mm*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: