

This page is mainly introduced the STS630 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of STS630, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel STS630

| STS630 Standard Number: | | |
|-------------------------|-----------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | D 3698 (2008) | Cold rolled stainless steel plates, sheets and strip |
| 2 | D 3705 (2008) | Hot rolled stainless steel plates, sheets and strip |
| 3 | D 3706 (2008) | Stainless steel bars |

| STS630 Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.07 | | | |
| Si | | | | | | 1.00 | | | |
| Mn | | | | | | 1.00 | | | |
| P | | | | | | 0.040 | | | |
| S | | | | | | 0.030 | | | |
| Cr | | 15.00 | | | | 17.00 | | | |
| Ni | | 3.00 | | | | 5.00 | | | |
| Mo | | | | | | | | | |
| N | | | | | | | | | |
| Cu | | 3.00 | | | | 5.00 | | | |
| Nb | | 0.15 | | | | 0.45 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Stainless steel bars

| STS630 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 | - |

| STS630 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 | - |

| STS630 Heat Treatment Regime | | | | |
|------------------------------|-----------|-----------|-------------|-------|
| Annealing | Quenching | Tempering | Normalizing | Q & T |
| √ | √ | √ | √ | √ |

| STS630 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, | $\Phi 8$ -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: