

This page is mainly introduced the SUS 630 FB Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SUS 630 FB, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel SUS 630 FB

| SUS 630 FB Standard Number: |                 |                                                 |
|-----------------------------|-----------------|-------------------------------------------------|
| ITEM                        | Standard Number | Descriptions                                    |
| 1                           | G 4319 (1991)   | Stainless steel blooms and billets for forgings |

| SUS 630 FB Chemical composition (mass fraction) (wt.%) |    |         |    |    |    |         |    |    |       |
|--------------------------------------------------------|----|---------|----|----|----|---------|----|----|-------|
| Chemical                                               |    | Min.(%) |    |    |    | Max.(%) |    |    |       |
| C                                                      |    |         |    |    |    | 0.07    |    |    |       |
| Si                                                     |    |         |    |    |    | 1.00    |    |    |       |
| Mn                                                     |    |         |    |    |    | 1.00    |    |    |       |
| P                                                      |    |         |    |    |    | 0.04    |    |    |       |
| S                                                      |    |         |    |    |    | 0.03    |    |    |       |
| 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 blooms and billets for forgings

### SUS 630 FB 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      | -                        |

### SUS 630 FB 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      | -                        |

### SUS 630 FB Heat Treatment Regime

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

### SUS 630 FB 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:**