

**This page is mainly introduced the STS317J4L Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of STS317J4L, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## Datasheet for Steel Grades Special Steel STS317J4L

### STS317J4L 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                                 |

### STS317J4L Chemical composition (mass fraction) (wt.%)

| Chemical |    | Min.(%) |    |    |    |    | Max.(%) |    |       |  |
|----------|----|---------|----|----|----|----|---------|----|-------|--|
| C        |    |         |    |    |    |    | 0.03    |    |       |  |
| Si       |    |         |    |    |    |    | 1.00    |    |       |  |
| Mn       |    |         |    |    |    |    | 2.00    |    |       |  |
| P        |    |         |    |    |    |    | 0.045   |    |       |  |
| S        |    |         |    |    |    |    | 0.030   |    |       |  |
| Cr       |    | 19.00   |    |    |    |    | 24.00   |    |       |  |
| Ni       |    | 24.00   |    |    |    |    | 26.00   |    |       |  |
| Mo       |    | 5.00    |    |    |    |    | 7.00    |    |       |  |
| N        |    |         |    |    |    |    | 2.50    |    |       |  |
| C        | Si | Mn      | P  | S  | Cr | Ni | Mo      | V  | Ta    |  |
| W        | N  | Cu      | Co | Pb | B  | Nb | Al      | Ti | Other |  |
|          |    |         |    |    |    |    |         |    |       |  |

Stainless steel bars

### STS317J4L 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      | -                        |

### STS317J4L 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      | -                        |

### STS317J4L Heat Treatment Regime

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

### STS317J4L 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:**