

This page is mainly introduced the 310Cb Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 310Cb, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel 310Cb

### 310Cb Standard Number:

| ITEM | Standard Number  | Descriptions  |
|------|------------------|---|
| 1    | SAE J 405 (1998) | Chemical compositions of SAE wrought stainless steels |

### 310Cb Chemical composition (mass fraction) (wt.%)

| Chemical |    | Min.(%) |    |    |    |    | Max.(%) |    |       |  |
|----------|----|---------|----|----|----|----|---------|----|-------|--|
| C        |    |         |    |    |    |    | 0.08    |    |       |  |
| Si       |    |         |    |    |    |    | 1.50    |    |       |  |
| Mn       |    |         |    |    |    |    | 2.00    |    |       |  |
| P        |    |         |    |    |    |    | 0.045   |    |       |  |
| S        |    |         |    |    |    |    | 0.03    |    |       |  |
| Cr       |    | 24.00   |    |    |    |    | 26.00   |    |       |  |
| Ni       |    | 19.00   |    |    |    |    | 22.00   |    |       |  |
| Nb+Ta    |    |         |    |    |    |    | 1.10    |    |       |  |
| C        | Si | Mn      | P  | S  | Cr | Ni | Mo      | V  | Ta    |  |
| W        | N  | Cu      | Co | Pb | B  | Nb | Al      | Ti | Other |  |

### Chemical compositions of SAE wrought stainless steels

### 310Cb 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      | -            |

| 310Cb 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      | -                        |

| 310Cb Heat Treatment Regime |           |           |             |       |
|-----------------------------|-----------|-----------|-------------|-------|
| Annealing                   | Quenching | Tempering | Normalizing | Q & T |
| √                           | √         | √         | √           | √     |

| 310Cb 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, Square Bar          | $\Phi$ 8-1200mm*L          | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, 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:**