

This page is mainly introduced the 1.4948 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4948, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel 1.4948

### 1.4948 Standard Number:

| ITEM | Standard Number      | Descriptions  |
|------|----------------------|---|
| 1    | NF EN 10028-7        | Flat products made of steels for pressure purposes - Part 7: Stainless steels                                   |
| 2    | NF EN 10088-1        | Stainless steels - Part 1: List of stainless steels   |
| 3    | NF EN 10216-5 (2004) | Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 5: Stainless steel tubes      |
| 4    | NF EN 10222-5        | Steel forgings for pressure purposes - Part 5: Martensitic, austenitic and austenitic-ferritic stainless steels |
| 5    | NF EN 10269          | Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties                |

### 1.4948 Chemical composition (mass fraction) (wt.%)

| Chemical |    | Min.(%) |    | Max.(%) |    |    |    |    |       |
|----------|----|---------|----|---------|----|----|----|----|-------|
| C        |    | 0.04    |    | 0.08    |    |    |    |    |       |
| Si       |    |         |    | 1.00    |    |    |    |    |       |
| Mn       |    |         |    | 2.00    |    |    |    |    |       |
| P        |    |         |    | 0.035   |    |    |    |    |       |
| S        |    |         |    | 0.015   |    |    |    |    |       |
| Cr       |    | 17.00   |    | 19.00   |    |    |    |    |       |
| Ni       |    | 8.00    |    | 11.00   |    |    |    |    |       |
| Mo       |    |         |    |         |    |    |    |    |       |
| N        |    |         |    | 0.11    |    |    |    |    |       |
| C        | Si | Mn      | P  | S       | Cr | Ni | Mo | V  | Ta    |
| W        | N  | Cu      | Co | Pb      | B  | Nb | Al | Ti | Other |
|          |    |         |    |         |    |    |    |    |       |

Steels and nickel alloys for fasteners with specified elevated and/or low

## temperature properties

| 1.4948 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      | -                        |

| 1.4948 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      | -                        |

| 1.4948 Heat Treatment Regime |           |           |             |       |
|------------------------------|-----------|-----------|-------------|-------|
| Annealing                    | Quenching | Tempering | Normalizing | Q & T |
| √                            | √         | √         | √           | √     |

| 1.4948 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          | Φ8-1200mm*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:**