

This page is mainly introduced the X3CrNiMo13-4 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X3CrNiMo13-4, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel X3CrNiMo13-4

| X3CrNiMo13-4 Standard Number: |                     |  |
|-------------------------------|---------------------|--|
| ITEM                          | Standard Number     | Descriptions   |
| 1                             | ISO 15510 (2010)    | Stainless steels -- Chemical composition   |
| 2                             | ISO 16143-2 (2004)  | Stainless steels for general purposes -- Part 2: Semi-finished products, bars, rods and sections     |
| 3                             | ISO 9328-7 (2011)   | Steel flat products for pressure purposes - Technical delivery conditions - Part 7: Stainless steels |
| 4                             | ISO/TS 15510 (2003) | Stainless steels - Chemical composition  |

| X3CrNiMo13-4 Chemical composition(mass fraction)(wt.%) |    |         |    |    |    |         |    |    |       |
|--|----|---------|----|----|----|---------|----|----|-------|
| Chemical   |    | Min.(%) |    |    |    | Max.(%) |    |    |       |
| C  |    |         |    |    |    | 0.05    |    |    |       |
| Si   |    |         |    |    |    | 0.70    |    |    |       |
| Mn   |    | 0.50    |    |    |    | 1.00    |    |    |       |
| P  |    |         |    |    |    | 0.040   |    |    |       |
| S  |    |         |    |    |    | 0.015   |    |    |       |
| Cr   |    | 12.00   |    |    |    | 14.00   |    |    |       |
| Ni   |    | 3.50    |    |    |    | 4.50    |    |    |       |
| Mo   |    | 0.30    |    |    |    | 1.00    |    |    |       |
| N  |    |         |    |    |    |         |    |    |       |
| C  | Si | Mn      | P  | S  | Cr | Ni      | Mo | V  | Ta    |
| W  | N  | Cu      | Co | Pb | B  | Nb      | Al | Ti | Other |
|  |    |         |    |    |    |         |    |    |       |

Stainless steels - Chemical composition

### X3CrNiMo13-4 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      | -                        |

### X3CrNiMo13-4 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      | -                        |

### X3CrNiMo13-4 Heat Treatment Regime

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

### X3CrNiMo13-4 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:**