**This page is mainly introduced the X 4 CrNiMo 16 5 1 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X 4 CrNiMo 16 5 1,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Metals X 4 CrNiMo 16 5 1

| X 4 CrNiMo 16 5 1 Standard Number: | | | | |
|---|---|---|---|---|
| Area | Standard | Standard Code | Standard Year | Descriptions |
| Germany | DIN | DIN EN 10088-1 | 2014 | Stainless steels. List of stainless steels |

| X 4 CrNiMo 16 5 1 Chemical composition(mass fraction)(wt.%) | | | |
|---|---|---|---|
| Chemical | Min.(%) | Max.(%) | Similar (%) |
| Si | - | 0.7000 | - |
| S | - | 0.0300 | - |
| P | - | 0.0400 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0050 | - |
| P | - | 0.0250 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | 0.0800 | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Fe | - | - | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0050 | - |

| | | | |
|---|---|---|---|
| P | - | 0.0300 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | 0.0800 | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0050 | - |
| P | - | 0.0300 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0050 | - |
| P | - | 0.0300 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0300 | - |
| P | - | 0.0400 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0150 | - |
| P | - | 0.0400 | - |

| | | | |
|---|---|---|---|
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0300 | - |
| P | - | 0.0400 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |
| Si | - | 0.7000 | - |
| S | - | 0.0150 | - |
| P | - | 0.0400 | - |
| Ni | 4.0000 | 6.0000 | - |
| N | 0.0200 | - | - |
| Mo | 0.8000 | 1.5000 | - |
| Mn | - | 1.5000 | - |
| Cr | 15.0000 | 17.0000 | - |
| C | - | 0.0600 | - |

## X 4 CrNiMo 16 5 1 Physical Properties

| | | |
|---|---|---|
| Tensile strength | 115-234 | σb/MPa |
| Yield Strength | 23 | σ 0.2 ≥/MPa |
| Elongation | 65 | δ5≥ (%) |
| ψ | - | ψ≥ (%) |
| Akv | - | Akv≥/J |
| HBS | 123-321 | - |
| HRC | 30 | - |

## X 4 CrNiMo 16 5 1 Mechanical Properties

| | | |
|---|---|---|
| Tensile strength | 231-231 | σb/MPa |
| Yield Strength | 154 | σ 0.2 ≥/MPa |
| Elongation | 56 | δ5≥(%) |
| ψ | - | ψ≥(%) |
| Akv | - | Akv≥/J |
| HBS | 235-268 | - |
| HRC | 30 | - |

## X 4 CrNiMo 16 5 1 Heat Treatment Regime

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

## X 4 CrNiMo 16 5 1 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 Metals the specifications follows: