**This page is mainly introduced the 41CrNi12XS Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 41CrNi12XS,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Steel Grades Structure Steel 41CrNi12XS

| 41CrNi12XS Standard Number: | | |
|---|---|---|
| ITEM | Standard Number | Descriptions |

| 41CrNi12XS Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical | | | Min.(%) | | | | Max.(%) | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| 0.36-0.44 | 0.17-0.37 | 0.50-0.80 | 0.025 | 0.020-0.035 | 0.45-0.75 | 1.00-1.40 | 0.15 | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | 0.30 | | | | | | 0.02 | |

41CrNi12XS

| 41CrNi12XS 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 | - |

| 41CrNi12XS 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 | - |

## 41CrNi12XS Heat Treatment Regime

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

## 41CrNi12XS 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 Structure Steel the specifications follows: