**This page is mainly introduced the 12X17 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 12X17,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Steel Grades Heat-Resistant Steel 12X17

| 12X17 Standard Number: | | |
|---|---|---|
| ITEM | Standard Number | Descriptions |

| 12X17 Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical | | | Min.(%) | | | Max.(%) | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| Max 0.12 | Max 0.80 | Max 0.80 | Max 0.03 | Max 0.025 | 16.0-18.0 | Max 0.60 | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | Max 0.20 | |

12X17

| 12X17 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 | - |

| 12X17 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 | - |

| 12X17 Heat Treatment Regime | | | | |
|---|---|---|---|---|
| **Annealing** | **Quenching** | **Tempering** | **Normalizing** | **Q & T** |
| √ | √ | √ | √ | √ |

| 12X17 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 Heat-Resistant Steel the specifications follows: