

This page is mainly introduced the NiCr22Mo9Nb Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of NiCr22Mo9Nb, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Special Steel NiCr22Mo9Nb

NiCr22Mo9Nb Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--|
| 1 | ISO 6207 (1992) | Seamless nickel and nickel alloy tube |
| 2 | ISO 6208 (1992) | Nickel and nickel alloy plate, sheet and strip |
| 3 | ISO 9722 (1992) | Nickel and nickel alloys - Composition and forms of wrought products |
| 4 | ISO 9723 (1992) | Nickel and nickel alloy bars |
| 5 | ISO 9724 (1992) | Nickel and nickel alloy wire and drawing stock |
| 6 | ISO 9725 (1992) | Nickel and nickel alloy forgings |

NiCr22Mo9Nb Chemical composition (mass fraction) (wt.%)

| Chemical | Min.(%) | Max.(%) | | | | | | | |
|----------|---------|---------|---|---|----|----|----|---|----|
| C | | 0.10 | | | | | | | |
| Si | | 0.50 | | | | | | | |
| Mn | | 0.50 | | | | | | | |
| P | | 0.015 | | | | | | | |
| S | | 0.015 | | | | | | | |
| Cr | 20.00 | 23.00 | | | | | | | |
| Ni | 58.00 | | | | | | | | |
| Mo | 8.00 | 10.00 | | | | | | | |
| Nb+Ta | 3.15 | 4.15 | | | | | | | |
| Ti | | 0.40 | | | | | | | |
| Al | | 0.40 | | | | | | | |
| Co | | 1.00 | | | | | | | |
| Fe | | 5.00 | | | | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |

| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
|---|---|----|----|----|---|----|----|----|-------|
| | | | | | | | | | |

Nickel and nickel alloy forgings

NiCr22Mo9Nb Physical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | σ_b /MPa |
| Yield Strength | 23 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 65 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | $Akv \geq$ /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

NiCr22Mo9Nb Mechanical Properties

| | | |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | σ_b /MPa |
| Yield Strength | 154 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 56 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | $Akv \geq$ /J |
| HBS | 235-268 | - |
| HRC | 30 | - |

NiCr22Mo9Nb Heat Treatment Regime

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

NiCr22Mo9Nb Range of products

| Product type | Products | Dimension | Processes | Deliver Status |
|-----------------|-----------------|-------------------|--------------------------|------------------------|
| Plates / Sheets | Plates / Sheets | 0.08-200mm(T)*W*L | Forging, hot rolling and | Annealed, Solution and |

| | | | | |
|---------------|--|----------------------------|---|---|
| | | | cold rolling | 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: