

This page is mainly introduced the 1.3964 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.3964, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.3964

1.3964 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|--------------------|--|
| 1 | WL 1.3964-1 (2008) | Non-magnetizable austenitic cast steel □G-X2CrNiMnMoNb 21-16-5-3 Part 4: Castings |
| 4 | WL 1.3964-6 (2008) | Non-magnetizable austenitic steel X2CrNiMnMoNb 21-16-5-3 Part 6: Seamless rolled rings |

1.3964 Chemical composition(mass fraction)(wt.%)

| Chemical | | Min.(%) | | | | | Max.(%) | | | |
|----------|----|---------|----|----|----|----|---------|----|-------|--|
| C | | | | | | | 0.030 | | | |
| Si | | | | | | | 1.00 | | | |
| Mn | | 4.00 | | | | | 6.00 | | | |
| P | | | | | | | 0.025 | | | |
| S | | | | | | | 0.010 | | | |
| Cr | | 20.00 | | | | | 21.50 | | | |
| Ni | | 15.00 | | | | | 17.00 | | | |
| Mo | | 3.00 | | | | | 3.50 | | | |
| Nb | | | | | | | 0.25 | | | |
| N | | 0.200 | | | | | 0.35 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| | | | | | | | | | | |

Non-magnetizable austenitic cast steel □G-X2CrNiMnMoNb 21-16-5-3 Part 4: Castings

1.3964 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 | - |

1.3964 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 | - |

1.3964 Heat Treatment Regime

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

1.3964 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 Specialsteel the specifications follows: