

This page is mainly introduced the 1Cr18Mn10Ni5Mo3N Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr18Mn10Ni5Mo3N, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Special Alloy 1Cr18Mn10Ni5Mo3N

1Cr18Mn10Ni5Mo3N Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--------------|
|------|-----------------|--------------|

1Cr18Mn10Ni5Mo3N Chemical composition (mass fraction) (wt.%)

| Chemical | | | | Min.(%) | | | Max.(%) | | |
|----------|-----------|------------|-----------|-----------|-------------|-----------|-----------|----|-------|
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| Max 0.10 | Max 1.00 | 8.50-12.00 | max 0.060 | Max 0.030 | 17.00-19.00 | 4.00-6.00 | 2.80-3.50 | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | 0.20-0.30 | | | | | | | | |

GB/T 1220 (1992)

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1Cr18Mn10Ni5Mo3N 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 | - |
|-----|----|---|

1Cr18Mn10Ni5Mo3N 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 | - |

1Cr18Mn10Ni5Mo3N Heat Treatment Regime

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

1Cr18Mn10Ni5Mo3N 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 Special Alloy the specifications follows: