

This page is mainly introduced the 4Cr5MoSiV Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 4Cr5MoSiV, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Tool Steel And Hard Alloy 4Cr5MoSiV

4Cr5MoSiV Standard Number:

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

4Cr5MoSiV Chemical composition (mass fraction) (wt.%)

| Chemical | | | Min.(%) | | | | Max.(%) | | |
|-----------|-----------|-----------|---------|--------|-----------|-------|-----------|-----------|-------|
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| 0.33-0.43 | 0.80-1.20 | 0.20-0.50 | ≤0.030 | ≤0.030 | 4.75-5.50 | ≤0.20 | 1.10-1.60 | 0.30-0.60 | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | ≤0.30 | | | | | | | |

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4Cr5MoSiV Physical Properties

| | | |
|------------------|---------|------------------------|
| Tensile strength | 115-234 | σ _b /MPa |
| Yield Strength | 23 | σ _{0.2} ≥/MPa |
| Elongation | 65 | δ ₅ ≥ (%) |

| | | |
|--------|---------|-----------------|
| ψ | - | $\psi \geq$ (%) |
| Akv | - | $Akv \geq$ /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

| 4Cr5MoSiV 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 | - |

| 4Cr5MoSiV Heat Treatment Regime | | | | |
|---------------------------------|-----------|-----------|-------------|-------|
| Annealing | Quenching | Tempering | Normalizing | Q & T |
| √ | √ | √ | √ | √ |

| 4Cr5MoSiV 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 | $\Phi 8$ -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 Tool Steel And Hard Alloy the specifications follows: