

This page is mainly introduced the BD2A Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of BD2A, 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 BD2A

BD2A Standard Number:

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

BD2A Chemical composition (mass fraction) (wt.%)

| Chemical | | | Min.(%) | | | | Max.(%) | | |
|-----------|-------|-------|---------|----|-----------|-------|-----------|-----------|-----------------------|
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| 1.60-1.90 | ≤0.60 | ≤0.60 | | | 12.0-13.0 | ≤0.40 | 0.70-0.90 | 0.25-1.00 | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | Cu ≤ 0.20, S n ≤ 0.05 |

BD2A Physical Properties

| | | |
|------------------|---------|-------------------------|
| Tensile strength | 115-234 | σ _b /MPa |
| Yield Strength | 23 | σ _{0.2} ≥ /MPa |
| Elongation | 65 | δ ₅ ≥ (%) |
| ψ | - | ψ ≥ (%) |
| Akv | - | Akv ≥ /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

BD2A Mechanical Properties

| | | |
|------------------|---------|---------------------|
| Tensile strength | 231-231 | σ _b /MPa |
| | | |

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

BD2A Heat Treatment Regime

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

BD2A 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: