

This page is mainly introduced the BH19 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of BH19, 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 BH19

BH19 Standard Number:

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

BH19 Chemical composition (mass fraction) (wt.%)

| Chemical | | | Min.(%) | | | | Max.(%) | | | |
|-----------|-------|-------|---------|----|-----------|-------|---------|-----------|-----------------------|--|
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| 0.35-0.45 | ≤0.40 | ≤0.40 | | | 4.00-4.50 | ≤0.40 | ≤0.45 | 2.00-2.40 | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| 4.00-4.50 | | | | | | | | | Cu ≤ 0.20, S n ≤ 0.05 | |

BH19 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 | - |

BH19 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 | - |

BH19 Heat Treatment Regime

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

BH19 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 Tool Steel And Hard Alloy the specifications follows: