

This page is mainly introduced the K418B Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of K418B, 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 K418B

### K418B Standard Number:

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

### K418B Chemical composition (mass fraction) (wt.%)

| Chemical  |      |       | Min.(%) |                              |             |           | Max.(%)   |           |       |
|-----------|------|-------|---------|------------------------------|-------------|-----------|-----------|-----------|-------|
| C         | Si   | Mn    | P       | S                            | Cr          | Ni        | Mo        | V         | Ta    |
| 0.03-0.07 | 0.50 | 0.25  | 0.015   | 0.015000<br>00000000<br>0000 | 11.00-13.00 | Bal       | 3.80-5.20 |           |       |
| W         | N    | Cu    | Co      | Pb                           | B           | Nb        | Al        | Ti        | Other |
|           |      | 0.500 | ≤1.00   |                              | 0.005-0.015 | 1.50-2.50 | 5.50-6.50 | 0.40-1.00 |       |

### K418B

### K418B Physical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength   | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation       | 65      | $\delta_{5\%} \geq$ (%)  |
| $\psi$           | -       | $\psi \geq$ (%)          |
| Akv              | -       | $Akv \geq$ /J            |
| HBS              | 123-321 | -                        |
| HRC              | 30      | -                        |

### K418B Mechanical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength   | 154     | $\sigma_{0.2} \geq$ /MPa |

|            |         |                      |
|------------|---------|----------------------|
| Elongation | 56      | $\delta 5 \geq (\%)$ |
| $\psi$     | -       | $\psi \geq (\%)$     |
| Akv        | -       | $Akv \geq J$         |
| HBS        | 235-268 | -                    |
| HRC        | 30      | -                    |

| K418B Heat Treatment Regime |           |           |             |       |
|-----------------------------|-----------|-----------|-------------|-------|
| Annealing                   | Quenching | Tempering | Normalizing | Q & T |
| √                           | √         | √         | √           | √     |

| K418B 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 Special Alloy the specifications follows:**