

This page is mainly introduced the ASTM Grade 415-205(60-30) Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of ASTM Grade 415-205(60-30), 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 ASTM Grade 415-205(60-30)

| ASTM Grade 415-205(60-30) Standard Number: |                 |              |
|--|-----------------|--------------|
| ITEM                                       | Standard Number | Descriptions |

| ASTM Grade 415-205(60-30) Chemical composition (mass fraction) (wt.%) |          |          |          |         |    |    |         |    |       |
|---|----------|----------|----------|---------|----|----|---------|----|-------|
| Chemical  |          |          |          | Min.(%) |    |    | Max.(%) |    |       |
| C   | Si       | Mn       | P        | S       | Cr | Ni | Mo      | V  | Ta    |
| Max 0.30  | Max 0.80 | Max 0.60 | Max 0.05 |         |    |    |         |    |       |
| W   | N        | Cu       | Co       | Pb      | B  | Nb | Al      | Ti | Other |
|   |          |          |          |         |    |    |         |    |       |

### ASTM Grade 415-205(60-30)

| ASTM Grade 415-205(60-30) 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      | -                        |

| ASTM Grade 415-205(60-30) Mechanical Properties |         |                 |
|---|---------|-----------------|
| Tensile strength                                | 231-231 | $\sigma_b$ /MPa |

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

### ASTM Grade 415-205(60-30) Heat Treatment Regime

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

### ASTM Grade 415-205(60-30) 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:**