

This page is mainly introduced the G10190 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of G10190, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Carbon Steel G10190

| G10190 Standard Number: |          |               |               |              |
|-------------------------|----------|---------------|---------------|--------------|
| Area                    | Standard | Standard Code | Standard Year | Descriptions |
|                         |          |               |               |              |

| G10190 Chemical composition (mass fraction) (wt.%) |         |         |             |
|--|---------|---------|-------------|
| Chemical   | Min.(%) | Max.(%) | Similar (%) |
|  |         |         |             |

| G10190 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      | -                        |

| G10190 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      | -                        |

### G10190 Heat Treatment Regime

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

### G10190 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 Carbon Steel the specifications follows:**