

Manufactory profile



My company has smelting, forging, heat treatment, machining etc workshop. Heat treatment equipment, heat treatment capacity of 20000 tons, 15 meters long, 4 m diameter workpiece; Special steel smelting with ED + LF + VD and electricity remelting of smelting slag ability.

The main production of special steel categories include: [Stainless Steel](#), [Tool steel](#), [Carbon steel](#), [Alloy steel](#), [Mould steel](#), [Ti Alloy](#), [High alloy](#), the whole steel, high temperature alloy, **nickel-based alloy**, **cobalt-based alloy**, **Hastelloy alloy** etc.

Production specifications including: **Round bar**, **Tube/Pipe**, **Steel plate**, **Sheet**, **Coil**, **Flat bar**, **Cold rolling**, **Steel wire**, **Steel strip** etc.

Characteristics for grade GCr15SiMn

| | |
|-----------------|--|
| Grade: | GCr15SiMn |
| Standard: | China GBT |
| Classification: | China structural steel and alloy steel |

Chemical composition % of the ladle analysis of grade GCr15SiMn

| C | Si | Mn | P | S | Cr | Ni | Mo | V |
|-----------|-----------|-----------|-------|-------|-----------|----------|----------|-------|
| 0.95-1.05 | 0.45-0.75 | 0.95-1.25 | 0.025 | 0.025 | 1.40-1.65 | Max 0.30 | Max 0.10 | |
| W | N | Cu | Co | Pb | B | Nb | Al | Other |
| | | Max 0.25 | | | | | | |
| Ti | Ta | | | | | | | |
| | | | | | | | | |

Mechanical properties of grade GCr15SiMn

| Annealing hardness HBS | Cold pull hardness HBS | Preheating temperature °C | Quenching temperature °C | | Holding time min | Hardening medium | Temper temperature °C | After tempering hardness >=HRC |
|---------------------------|---------------------------|---------------------------|--------------------------|-------------------------------|------------------|------------------|-----------------------|-----------------------------------|
| | | | salt-bath furnace | controlled atmosphere furnace | | | | |
| 235 | 262 | 788 | 1191 | 1204 | 5~15 | air cooling | 522 | 60 |

Physical Properties

| Assortment | Dimension | Direct. | s _B | s _T | d ₅ | y | KCU | Heat treatment |
|------------|-----------|---------|----------------|----------------|----------------|---|---------------------|----------------|
| - | mm | - | MPa | MPa | % | % | kJ / m ² | - |
| casted | | | 11-13 | | 30-40 | | | |
| deformed | | | 15 | | 60-70 | | | |

Technological properties of grade GCr15SiMn

| | |
|----------------------|----------|
| Melting temperature: | 327.3 °C |
|----------------------|----------|

We can produce GCr15SiMn, the specifications follows:

Note:

- (1) listed in the table apex diameter (d), to steel thickness (a) multiples said.
- (2) in the ASTM A6 standard specified scope can meet any additional conditions.
- (3) from the standard for 50 mm (2 in).

Mechanical properties

Mechanische Eigenschaften

Caracteristiques mecaniques

ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'elasticite minimale

Rm Tensile strength / Zugfestigkeit / Resistance a la traction

A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal

J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc

Round bar:

Diameter : 1mm-2000mm

Square bar:

Size: 50mm * 50mm-600mm *600mm

Plate steel/flat bar:

Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm

Tube/pipe:

Size: OD: 6-219mm WT: 1-35 mm.

Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm

Hot-rolled sheet: Thickness:6-80mm Width: 210-610mm

Length: We can supply any length based on the customer's requirement.

Forging/hot rolling/ extrusion of steel.

Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes

Finished goods condition: hot forging/hot rolling + annealing/normalizing + tempering/quenching + tempering/any conditions based on the customer's requirement

Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on the customer's requirement

Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.

Ultrasonic inspection: 100% ultrasonic inspection for any imperfections or based on the customer's requirement.

UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402

Excellent service for all kinds of industries, with advantages of technologies, equipment and price.

We serve you with our honesty, integrity, and professionalism.

Product pictures



Web address: [/Steel-Grades/Structure-Steel/GCr15SiMn.html](http://Steel-Grades/Structure-Steel/GCr15SiMn.html)