

G3000

Cars and diesel engine cylinder block, cylinder head, flywheel and differential carrier medium castings, piston, brake hub and clutch plate G3000 steel chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, We can produce round bars, forged rings, forged cakes, flat bars, tubes, sheets, plates, steel wires, steel strips, steel coils, etc. The size can be customized, the maximum order quantity is 100Kg. It also contains the use of **G3000**, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Data Table for Grades Cast Iron and Cast Steel Cars and diesel engine cylinder block, cylinder head, flywheel and differential carrier medium castings, piston, brake hub and clutch plate G3000

G3000 Standard Number			
ITEM Standard Number		Descriptions	
1	ASTM A 159 (1983)	Pearlitic automotive gray iron castings	

G3000 Chemical composition(mass fraction)(wt.%)				
Chemical	Min.(%)	Max.(%)		
С	3.10	3.40		
Si	1.90	2.30		
Mn	0.60	0.90		
Р		0.15		
S		0.15		

G3000 Physical Properties				
Tensile strength	115-234	?b/MPa		
Yield Strength	23	? 0.2 ?/MPa		



G3000

Elongation	65	?5? (%)
?	-	?? (%)
Akv	-	Akv?/J
HBS	123-321	-
HRC	30	-

G3000 Mechanical Properties				
Tensile strength	231-231	?b/MPa		
Yield Strength	154	? 0.2 ?/MPa		
Elongation	56	?5?(%)		
?	-	??(%)		
Akv	-	Akv?/J		
HBS	235-268	-		
HRC	30	-		

G3000 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
?	?	?	?	?

G3000 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	?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 Cast Iron and Cast Steel 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 inperfections 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 professionality.