

OTAI SPECIAL STEEL is 100Cr6 bearing steel stockholders and suppliers from china. more 16 years experience in DIN 100Cr6 steel supply.

DIN 100Cr6 bearing steel is a high quality Alloy Bearing steel, It belong to the high quality high carbon, alloy chromium, manganese steel. 100Cr6 Oil Quenched & Tempered Hardness is 28-34 HRC. DIN 100Cr6 steel Annealing delivery hardness less than 250HB.

DIN 100Cr6 Alloy bearing steel properties is a chromium, manganese alloy steel specification. 100Cr6 is equivalent to AISI 52100, GB GCr15. Most applications can replace each others.

**Related Specifications** ASTM A29/A29M DIN EN 10083/3 JIS G4053 GB GB/T 3077

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### Form of Supply

DIN 100Cr6 bearing steel, we can supply the round bar, steel flat bar, plate, hexagonal steel bar and steel square block. DIN 100Cr6 steel Round bar can be sawn to your required lengths as one offs or multiple cut pieces. 100Cr6 bearing steel Rectangular pieces can be sawn from flat bar or plate to your specific sizes. Ground tool steel bar can be supplied, providing a quality precision finished bar to tight tolerances.



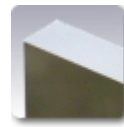
Round



sheet



Square



Plate

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### Chemical composition

C(%)	0.93~ 1.05	Si(%)	0.15~0.35	Mn(%)	0.25~ 0.45	P(%)	≤0.025
S(%)	≤0.015	Cr(%)	1.35~1.60				

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### Heat treatment Related

#### ① Annealing of 100Cr6 Alloy bearing steel

Slowly heated to 790–810 °C and allow enough times, let the steel to be thoroughly heated, Then cool slowly in the furnace. Different annealing ways will get different hardness. The 100Cr6 bearing steel will get Hardness MAX 248 HB (Brinell hardness) .

### ② Quenching and temperature of 100Cr6 Alloy bearing steel

Heated slowly to 860° C, Then quenching by oil get 62 to 66 HRC hardness. **High temperature tempering:** 650–700°C, cool in air, get hardness 22 to 30HRC. **Low temperature tempering:** 150–170 °C, Cool in ari, get 61–66HRC hardness.

### ③ Hot work and cold work of 100Cr6 Alloy bearing steel

Din 100Cr6 steel can **hot worked at 205 to 538° C**, 100Cr6 Bearing steel can be cold worked using conventional techniques in the annealed or normalized conditions.

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## Mechanical Properties

The mechanical properties of annealed DIN 100Cr6 bearing steel (typical for steel) are outlined in the table below:

Tensile	Yield	Bulk modulus	Shear modulus	Poisson 's ratio	Thermal conductivity
MPa	Mpa	Gpa	Gpa		W/mK
520	415 Min	<b>140</b>	80	0.27– 0.30	46.6

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## Applications

DIN 100Cr6 steel is widely used for a variety of applications in the used to the bearings in rotating machinery. Typical applications such as valve bodies, pumps and fittings, the high load of wheel, bolts, double-headed bolts, gears, internal combustion engine. Electric locomotives, machine tools, tractors, steel rolling equipment, boring machine, railway vehicle, and mining machinery transmission shaft on the steel ball, roller and shaft sleeve, etc.

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## Regular size and Tolerance

### 1) Hot Rolled round bar

Diameter (mm)	Diameter Tolerance (mm)	Diameter (mm)	Diameter Tolerance (mm)
≤12.70	-0.13 ~0.30	>50.80~63.5	-0.25~0.76
12.7~25.40	-0.13~0.41	>63.50~76.20	-0.25~1.02
>25.4~38.10	-0.15~0.51	>76.20~101.60	-0.30~+1.27
>38.1~50.80	-0.20~0.64	>101.60~ 203.20	-0.38~3.81

### 2) Hot Rolled steel plate

Thickness (mm)	Thickness Tolerance (mm)	Thickness (mm)	Thickness Tolerance (mm)
≤25.4	-0.41~0.79	>127~152	-1.60~2.39
>25.4~76	-0.79~1.19	>178~254	-1.98~3.18
>76~127	-1.19~1.60	>254~305	-2.39~3.96

Others 100Cr6 have not specified size, pls [contact](#) our experienced sales team.

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### Processing

DIN 100Cr6 bearing steel round bar and flat sections can be cut to your required sizes. 100Cr6 bearing steel ground bar can also be supplied, providing a high quality tool steel precision ground tool steel bar to your required tolerances. DIN 100Cr6 steel is also available as Ground Flat Stock / Gauge Plate, in standard and nonstandard sizes.

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Contact our experienced sales team to help you with your 100Cr6 bearing steel questions and enquiry by [Email](#) or Telephone. The questions will be reply in 24 hours.

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### **OTAI SPECIAL STEEL CO., LTD**

Email: [jack@otaisteel.com](mailto:jack@otaisteel.com) TEL: 0086-769-33232622 FAX: 0086-769-88705839