



## Alloy Steel G17CrMo5-5 (EN 1.7357)

G17CrMo5-5 is one type low alloy cast steel in casting standard of EN 10293 and EN 10213. It's same as ASTM A217 WC6. [castingquality.com](http://www.castingquality.com)

### Casting Methods in Casting Quality Industrial:

- n Sand Casting
- n Investment Casting (Lost Wax Casting, Precision Casting)

### Similar Stainless Steel Grade: [castingquality.com](http://www.castingquality.com)

ASTM A217 WC6

JIS 5151 SCPH21

Chinese grade ZG15CrMo

### Reference Casting Standards:

**BS EN 10293:2015 Steel castings. Steel castings for general engineering uses**

**DIN EN 10293:2015-04 Steel castings - Steel castings for general engineering uses**

### EN 10213 Part 2: Steel grades

### G17CrMo5-5 (EN 1.7357) Physical Properties:

Density: 7.7 kgs/dm<sup>3</sup>

Specific heat: 460 J(kg-k) at 20 °C

Thermal conductivity: 26 W/(m-K) at 50 °C

27 W/(m-K) at 100 °C

Mean thermal expansion: 10.5 10<sup>-6</sup>k<sup>-1</sup> from 20°C up to 100°C

11 10<sup>-6</sup>k<sup>-1</sup> from 20°C up to 100°C

12 10<sup>-6</sup>k<sup>-1</sup> from 20°C up to 100°C

### G17CrMo5-5 (EN 1.7357) Chemistry Property:

Steel Grade		G17CrMo5-5 (EN 1.7357) Chemical Composition / Physical Properties % (max, except where range is given)							
Name	Number	Carbon	Manganese	Silicon	Sulfur	Phosphorus	Chromium	Molybdenum	
EN 10293 G17CrMo5-5	1.7357	0.15-0.20	0.50-1.00	0.60	0.020	0.025	1.00-1.50	0.45-0.65	
EN 10213 G17CrMo5-5	1.7357	0.15-0.20	0.50-1.00	0.60	0.020	0.020	1.00-1.50	0.45-0.65	

For Casings of ruling Thickness <28mm, %0.030 S is permitted







## G17CrMo5-5 (EN 1.7357) Heat treatment process:

Quenching and Temper

## G17CrMo5-5 (EN 1.7357) Steel Mechanical Property

Stainless Steel Grade	Heat Treatment			Thickn ess mm	Test At room temperature				Test at elevated Temperature						
					Tensile Test, min			Impact Test	Tensile Test Rp0.2 MPa min						
	Symb ol	Quen ching (+Q)	Tempe ring (+T)		Rp0.2 MPa	Rm MPa	A %	Tempe rature KVJ	200 °C	300 °C	350 °C	400 °C	450 °C	500 °C	550 °C
<b>EN 10293 G17CrMo5- 5 (EN 1.7357)</b>	+QT	920- 960	680- 730	<100	315	490- 690	20	27	Not required						
<b>EN 10213 G17CrMo5- 5 (EN 1.7357)</b>	+QT	920- 960	680- 730	<100	315	490- 690	20	27	250	230	215	200	190	175	160

1. +Q means: Quenching in air or liquid.
2. +AT means: Solution annealing + quenching in water.
3. 1MPa = 1 N/MM<sup>2</sup>.

## G17CrMo5-5 (EN 1.7357) Welding conditions:

Preheated temperature 150 to 250 °C, interpass temperature 350°C, post weld heat treatment 650 °C min.

## G17CrMo5-5 (EN 1.7357) Typical Casting Application

- I Pump Castings.
- I Valve Castings.
- I Turbines Castings: Francis Blade, Runner Crown, and Wicket Gates.
- I Steam Boilers
- I Heat Exchanger System.



**Impeller/Propeller**  
Sand Casting, 1 Ton  
[www.castingquality.com](http://www.castingquality.com)





As a professional casting manufacture, Qingdao Casting Quality Industrial pay much attention to the quality and technology, our products are much more casting and forging parts. We are mainly doing Sand Casting, Investment Casting (Lost Wax Casting or Precision Casting) and Die Casting. Today, its products are marketed globally through many countries.

## Our Services

Casting Quality focus on Metal Parts industry, we provide professional service in Metal Casting field.

- Sand Casting
- Investment Casting
- Shell Casting
- CNC Machining
- CAD Design
- Tools/Mold Design

Many buyers from all over the world purchase products from China. But do you know the quality of products in China? Maybe you only pay the surface and price, but the inner quality is lost.

## What makes Casting Quality the best?

### **Innovation**

Our engineers are more than just designers.... they're pioneers. Our team use CAD/CAM to do the simulation of casting parts. Through the advanced technology, we can know the weight and structure. We also visited so many factories to know their difference and improve our products every year.

### **Quality**

We're obsessed with quality. Casting Quality constantly strives to exceed our customers' expectations in durability and performance. In fact, we will control the whole process from the original material to the finished parts, include the technology. Uniquely-designed Quality Control System focuses on ensuring four product goals: 1) Eligible Chemistry, 2) Hardness 3) Property and 4) Affordable Pricing. The result is the best casting products value in the industry.

### **Service**

We're in Qingdao, China, It has convenient transportation of road and sea. Courteous service is part of who we are, and we do it better than anyone in the industry. With Casting Quality, you can expect friendly, knowledgeable, and prompt customer service.

### **Fulfillment**

Shipping orders complete and on-time is of paramount importance to our customers. We will count the delivery date and result before accept your order. Casting Quality consistently ranks as one of the best in speed of delivery and fill rates.

### ***SERVICE IN QINGDAO CASTING QUALITY INDUSTRIAL***

- I SAND CASTING**
- I INVESTMENT CASTING**
- I SHELL CASTING**
- I PERMANENT MOLD CASTING**
- I CNC MACHINING**
- I CAD/CAM DESIGN**