

## Qingdao Casting Quality Industrial Co., Ltd

## Stainless Steel CA6NM (J91540)

<u>CA6NM</u> is one type 12 Chromium 4 Nickel stainless steel Casting grade which listed in ASTM A743 and ASTM A352 standard only. UNS code is J91540. It's one "400" series materials are general high strength corrosion resistant alloys. with way cast

### **Casting Methods in Casting Quality Industrial:**

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

N/A

### Reference Casting Standards:

ASTM A743 Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.

ASTM A352 Standard Specification for Steel Castings, Ferritic and Martensitic, for Pressure-Containing Parts, Suitable for Low-Temperature Service.



| Stainless Steel |       | CA6NM Chemical Composition / Physical Properties % |           |         |        |            |           |         |            |  |  |
|-----------------|-------|--|-----------|---------|--------|------------|-----------|---------|------------|--|--|
| Grade           |       | (max, except where range is given)                 |           |         |        |            |           |         |            |  |  |
| Standard        | Grade | Carbon   | Manganese | Silicon | Sulfur | Phosphorus | Chromium  | Nickel  | Molybdenum |  |  |
| ASTM<br>A743    | CA6NM | 0.06   | 1.00      | 1.00    | 0.04   | 0.03       | 11.5-14.0 | 3.5-4.5 | 0.4-1.0    |  |  |
| ASTM<br>A352    | CA6NM | 0.06   | 1.00      | 1.00    | 0.04   | 0.03       | 11.5-14.0 | 3.5-4.5 | 0.4-1.0    |  |  |

### CA6NM Heat treatment process: www.castingquality.com

Heat to 1850°F [1010°C] minimum, air cool to 200°F [95°C] maximum prior to any optional intermediate temper, but shall cool to 100°F [40°C] maximum before the final temper. The final temper shall be between 1050°F [565°C] and 1150°F [620°C].

## Material Data Sheet

### **Qingdao Casting Quality Industrial Co., Ltd**

## **CA6NM** Stainless Steel Mechanical Property

ASTM A743 CA6NM don't need impact requirement, but ASMT A352 CA6NM required impact testing at -100°F [-73°C]. Buyers should confirm the Standard in drawings.

| Stainless Steel Grade |           |        | Tensile<br>Strength min |             | Yield<br>Strength,<br>min |         | Elong<br>ation,<br>min | Reduction of Area, | Hardn<br>ess<br>max | Impact Requirement Charpy  V-Notch Ft-lbf [J] |            |                        |
|-----------------------|-----------|--------|-------------------------|-------------|---------------------------|---------|------------------------|--------------------|---------------------|---|------------|------------------------|
| Standa<br>rd          | Grade     | UNS    | Ksi                     | MPa         | Ksi                       | MP<br>a | %                      | %                  | НВ                  | Average                                       | Single     | Temperature<br>°F [°C] |
| ASTM<br>A743          | CA6N<br>M | J91540 | 110                     | 755         | 80                        | 55<br>0 | 15                     | 35                 | 285                 |   | 1          |                        |
| ASTM<br>A352          | CA6N<br>M | J91540 | 110-<br>135             | 760-<br>930 | 80                        | 55<br>0 | 15                     | 35                 |                     | 20<br>[27]                                    | 15[2<br>0] | -100 [-73]             |

### **CA6NM Typical Casting Application**

- Pump Castings.
- I Valve Castings.
- Water Turbines castings: Francis Blade, Runner Crown, Wicket Gates.
- Heat Exchanger System.

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 do 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. Housing Casting Design in Solidworks

# 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.



## Material Data Sheet

## Qingdao Casting Quality Industrial Co., Ltd

## 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 INDUSTIRAL

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