EN-GJL-100 (EN 5.1100) Grey Cast Iron Casting Material

Introduction

EN-GJL-100 is a grey cast iron grade covered by EN 1561. Typical applications include shaped and decorative iron castings.

Manufacturing Process

Sand Casting
Shell Molding Casting
Lost Foam Casting

Equivalent Materials

Standard	Material Grade
GB/T 9439	HT100
GB 9439	HT100
NS11 100	SJG100
JIS G5501	FC100
NBN 830-01	FGG10
DIN 1691	GG10
ASTM A48M	100
BS 1452	100
SS 14 01	O110
UNI 5007	G10
AS 1830	100
ISO 185	ISO 185/JL/100

Reference Standards

Standard	Standard Title	Edition	Specification	Identifier
EN 1561	Founding - Grey cast irons	2023	EN-GJL-100	—

Physical Properties

N/A

Chemical Composition

No specified chemical composition limits in EN 1561

Heat Treatment

EN 1561–2023

Heat treatment for special applications may be agreed when the order is accepted; no fixed cycle is prescribed. If heat treatment is applied, representative samples must receive the same treatment as the castings.

Mechanical Properties

Core Mechanical Properties

EN 1561 — 2023 · Table 1 — Normative

Property	Tensile classification
Tensile Strength	100–200 MPa

wall thickness <= 40 mm; Separately cast or side-by-side cast sample; Sand moulds or moulds with comparable thermal behaviour; properties refer only to the stated sample type and wall-thickness range; Grade maximum tensile strength is the minimum plus 100 MPa. The lower thickness bound is inclusive only where identified by the table footnote. Specimen/sample size is selected as prescribed in the sampling clauses.

Welding Conditions

N/A

Applications

Grey cast iron EN 1561 EN-GJL-100 is used for shaped and decorative iron castings. Other cast components used in this material family include shaped covers, simple housings, counterweights and decorative and non-critical cast components. Typical settings include general machinery, building hardware and equipment assemblies. These family examples do not extend light-duty uses to highly loaded moving parts or pressure-retaining equipment.

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Casting Quality Industrial

As a professional manufacturer in China, We Casting Quality focus on Metal Parts OEM industry, and provide solutions and services in Metal Casting field as following:

Sand Casting

Investment Casting, Lost Wax process

Shell Casting

Lost Form Casting

Permanent Mold Casting

CNC Machining

CAD Design

Tools/Mold Design

Material Supplied

Cast Iron Castings (Grey Iron, Malleable Iron, Ductile Iron)

Carbon Steel and Alloy Steel Castings

Stainless Steel and Duplex Stainless Steel Castings

Aluminum Castings

Bronze and Brass Castings

Titanium and Cobalt Alloy Castings

What We Can Do

Design Ability

Our engineers will help you to improve the designs based on casting technology, then The simulation software will be processed to verify the casting pouring system. Pro/E, Solidworks, AutoCAD and ProCast are available in Casting Quality Industrial.

Saving Cost

Some manufacture processes may lead high cost. We will analyses the designs and advise the suitable methods to our customers. The best solution will be adopted.

Quality Control

From the raw material selecting to bulk production processing, all procedures will follow PPAP program if necessary. The certificates will be provided including chemistry, hardness, mechanical property or NDT testing.

Production Capacity

The max iron/steel castings can reach 30tons in weight, meanwhile the minus casting is around 1gram only.

We also have prototyping and 3D scanning ability for sample plan.

Logistic Service

The products will be delivered directly to customer’s workshop, which will save plenty of work for clients.

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