ISO1083/JS/HBW175 Ductile Cast Iron Casting Material

Introduction

ISO1083/JS/HBW175 is a ductile iron casting grade covered by ISO 1083. Its ferritic matrix is strengthened by solid solution. The material family serves agricultural machinery and industrial equipment.

Manufacturing Process

Sand Casting
Shell Molding Casting
Lost Foam Casting

Equivalent Materials

Not Available

Reference Standards

Standard	Standard Title	Edition	Specification
ISO 1083	Spheroidal graphite cast irons — Classification	2018	ISO1083/JS/HBW175

Physical Properties

Not Available

Chemical Composition

Not Available

Heat Treatment

ISO 1083–2018

Not Available

Mechanical Properties

Primary Mechanical Properties

ISO 1083 — 2018

Informative

Property	Value
Brinell Hardness	160–190 HBW
Tensile Strength	450 MPa
Yield Strength (Rp0.2)	350 MPa

Hardness requirements apply only where agreed.

Annex E is informative and applies only when agreed between manufacturer and purchaser at acceptance of the order.

Informative reference value

not an acceptance requirement

Tensile Strength; Yield Strength (Rp0.2): When only hardness is required, the other properties in Table E.2 (Rm and Rp0.2) are for information.

Tensile Strength; Yield Strength (Rp0.2): When hardness is required in addition to tensile properties, these values provide an introductory step to the procedure in E.3.

Welding Conditions

Not Available

Applications

Ductile iron ISO1083/JS/HBW175 belongs to the spheroidal graphite iron casting family. Family-level examples include cast valve bodies, pump housings, bearing housings and covers used in mechanical assemblies. The wider product family serves machinery builders, agricultural-equipment manufacturers and pump and valve applications.

CASTING QUALITY

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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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