GX40CrNiSi25-12 (EN 1.4837) Austenitic Stainless Steel Casting Material

Introduction

GX40CrNiSi25-12 is a heat-resistant austenitic stainless steel casting grade covered by EN 10295. CQ family-approved manufacturing options include Investment Casting, Shell Molding Casting and Sand Casting; process selection must suit the component and specification.

Manufacturing Process

Investment Casting
Shell Molding Casting
Sand Casting

Equivalent Grades

N/A

Reference Standards

Standard	Standard Title	Edition	Specification	Identifier
EN 10295	Heat resistant steel castings	2002	GX40CrNiSi25-12	—

Physical Properties

N/A

Chemical Composition

Element	EN 10295 Edition 2002 · wt.% Cast analysis
C	0.30–0.50
Si	1.00–2.50
Mn	<= 2.00
P	<= 0.040
S	<= 0.030
Cr	24.00–27.00
Ni	11.00–14.00
Mo	<= 0.50
Cu	<= 0.25[1]
Nb	<= 0.60[1]

Element	EN 10295 Edition 2002 · wt.% Cast analysis
V	<= 0.12[1]
W	<= 0.60[1]
Co	<= 1.00[1]

Notes

EN 10295 · Edition 2002

[1] Cu/Nb/V/W/Co: Unless otherwise agreed: limit for element unspecified in; no intentional addition except for finishing the heat.

Heat Treatment

NO HEAT TREATMENT

Mechanical Properties

Property	EN 10295 Edition 2002[1]
Yield Strength	>= 220 MPa
Tensile Strength	>= 450 MPa
Elongation	>= 6 %

Notes

EN 10295 · Edition 2002

[1] All properties in this column: Room temperature

Welding Conditions

N/A

Applications

At the heat-resistant steel casting-family level, typical applications include custom cast furnace components and industrial heat-treatment equipment. Component selection must follow the specified service atmosphere, temperature and applicable grade requirements.

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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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