



Stainless Steel GX40CrNiSi25-20 (EN 1.4848)

GX40CrNiSi25-20 is one type austenitic stainless steel casting grade with 25 Chromium and 20 Nickel in casting standard of EN 10295. Its EN number is EN 1.4848. GX40CrNiSi25-20 is a good stainless steel for heat resistant application.

Casting Methods in Casting Quality Industrial:

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

Equivalent Stainless Steel Grade: www.castingquality.com

ASTM A608 Grade HK40

ASTM A351 Grade HK40

ASTM A297 Grade HK (Type 25 Chromium, 20 Nickel)

Reference Casting Standards:

EN 10295 Heat resistant steel castings.

DIN 17465 Heat resistant steel castings

GX40CrNiSi25-20 (EN 1.4848) Physical Properties:

Density: 7.7 kgs/dm³

Specific heat: 500 J/(kg-k) at 20 °C

Thermal conductivity: 14.6 W/(m-K) at 20 °C
16.7 W/(m-K) at 100 °C
25 W/(m-K) at 800 °C
28 W/(m-K) at 1000 °C

Thermal expansion: 17 10⁻⁶k⁻¹ from 20°C up to 400°C
18 10⁻⁶k⁻¹ from 20°C up to 800°C
19 10⁻⁶k⁻¹ from 20°C up to 1000°C

GX40CrNiSi25-20 (EN 1.4848) Chemistry Property:

Casting Standard	EN10295	DIN 17465
Stainless Steel Grade	GX40CrNiSi25-20	GX40CrNiSi25-20
EN Number	1.4848	1.4848
Carbon	0.30-0.50	0.30-0.50
Manganese (max)	2.00	1.50
Silicon	1.00-2.50	1.00-2.50
Sulfur (max)	0.030	0.030
Phosphorus (max)	0.040	0.035
Chromium	24.0-27.0	24.0-26.0
Nickel	19.0-22.0	19.0-21.0
Molybdenum (max)	0.50	-





W (max)	0.60	-
Nb (max)	0.60	-
V (max)	0.12	-
Cu (max)	0.25	-
Co (max)	1.00	-

GX40CrNiSi25-20 (EN 1.4848) Heat treatment process: www.castingquality.com
No need heat treatment.

GX40CrNiSi25-20 (EN 1.4848) Stainless Steel Mechanical Property www.castingquality.com

Stainless Steel Casting Grade			Heat Treatment		Hardness	Test At room temperature		
Standard	Name	Number	Symbol	Annealed		Tensile Test, min		
					Rp0.2	Rm	A	
						MPa	MPa	%
EN10295	GX40CrNiSi25-20	1.4848	-	As-cast condition	-	220	450	8
DIN 17465	GX40CrNiSi25-20	1.4848	-	As-cast condition	-	230	440	7

GX40CrNiSi25-20 (EN 1.4848) Welding Conditions:

In DIN 17465, the covered electrode is 25 20Hc; Wire or rod is X40CrNi25-21(1.4846). Don't or only slightly preheated prior to welding, and no treatment after welding.

GX40CrNiSi25-20 (EN 1.4848) Maximum use temperatures: 1100 °C

GX40CrNiSi25-20 (EN 1.4848) Typical Casting Application

- Turbo Housing.
- Furnace, burner beds for garbage incinerators.
- Heat Exchanger System.
- Cement Industry



Stainless Steel Pump Casing
Investment Casting
www.castingquality.com



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:

1. **Sand Casting**
2. **Investment Casting, Lost Wax process**
3. **Shell Casting**
4. **Lost Form Casting**
5. **CNC Machining**
6. **CAD Design**
7. **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 can 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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