

This page is mainly introduced the GH 3536 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of GH 3536, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys GH 3536

GH 3536 Standard Number:

ITEM	Standard Number	Descriptions
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GH 3536 Chemical composition (mass fraction) (wt.%)

Chemical		Min.(%)			Max.(%)				
Ni					Bal				
Cr		20.50			23.50				
Fe		17.00			20.00				
C		0.05			0.15				
Mn					1.00				
Si					1.00				
Mo		8.00			10.00				
Co		0.50			2.50				
Al					0.10				
W		0.20			1.00				
B					0.005				
P					0.015				
S					0.01				
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

When up to 1200 °C with excellent oxidation resistance

Low good high temperature strength

"Very good formability and weldability

"Very good resistance to stress corrosion cracking

Due to high temperatures in all kinds of atmosphere corrosion resistance, and has excellent high temperature strength, GH536 has been widely used in various high temperature environment.

Typical applications:

Low industrial and aviation turbine (combustion chamber, the structure of the rectifier, cover)

Low industrial furnace parts, supporting roller, grating, ribbons and radiant tube

Low oil chemical spiral tube in the furnace

Low high temperature gas cooled reactor

GH 3536 Physical Properties

Tensile strength	115-234	σ_b /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	$Akv \geq$ /J
HBS	123-321	-
HRC	30	-

GH 3536 Mechanical Properties

Tensile strength	231-231	σ_b /MPa
Yield Strength	154	$\sigma_{0.2} \geq$ /MPa
Elongation	56	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	$Akv \geq$ /J
HBS	235-268	-
HRC	30	-

GH 3536 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

GH 3536 Range of products

Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED

We can produce Superalloys the specifications follows: