

This page is mainly introduced the 1.4980 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4980, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys 1.4980

1.4980 Standard Number:

ITEM	Standard Number	Descriptions
1	EN 10302: 2008	Creep resisting steels, nickel and cobalt alloys
2	EN 10269: 1999	Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties
3	EN 10088-1: 2005	Stainless steels. List of stainless steels

1.4980 Chemical composition (mass fraction) (wt.%)

Chemical			Min.(%)				Max.(%)		
C							0.08		
Cr			13.50				16.00		
Ni			24.00				27.00		
Mo			1.00				1.50		
Ti			1.75				2.30		
V			0.10				0.50		
B			0.001				0.010		
Mn			1.00				2.00		
Fe							Bal		
Al							0.40		
Si							1.00		
P							0.030		
S							0.020		
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Note: a cold pull rods, round cakes and ring blank standard (Ti) 1.80% ~ 2.35%.

2 (B) of hot-rolled and cold-rolled sheet standard 0.003% ~ 0.010%, 2.00% or less (Mn), (P) acuties were 0.020%, 0.015% or less (S).

3 (Al) of cold drawn wire standard acuties were 0.35%, 1.75% ~ 2.35% (Ti) and (Si) 0.40% ~ 1.00%, 0.020% or less (P), (S) of 0.015% or less.

Use the wire, cold heading standards (Ti) 1.75% ~ 2.35%, 0.40% ~ 1.00% (Si), (P) acuties were 0.025%, 0.020% or less (S).

5 hot rolled and forged bar standard (Cu) of 0.25% or less.

1.5), heat treatment system is the standard heat treatment system are shown in table 1-3; Alloy is 900 °C heat treatment system plus or minus 10 °C, 1 to 2 h, oil cooled to + 750 °C + 10 °C, 16 h, air cooling.

1.4980 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	-

1.4980 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	-

1.4980 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
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✓	✓	✓	✓	✓
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1.4980 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: