

This page is mainly introduced the K125L Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of K125L, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys K125L

K125L Standard Number:

ITEM	Standard Number	Descriptions
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K125L Chemical composition (mass fraction) (wt.%)

Chemical	Min.(%)	Max.(%)
C	0.06	0.14
Cr	8.20	9.80
Ni		Bal
Co	9.20	10.80
W	6.20	7.80
Mo	1.50	2.50
Al	4.30	5.30
Ti	2.00	2.80
Fe		0.20
Ta	3.30	4.00
B	0.005	0.015
Zr		0.05
Si		0.15
Mn		0.15
P		0.001
S		0.010
Pb		0.0005
Sb		0.001
Sn		0.001
Bi		0.00005
Ag		0.0005

C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
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W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Directional Solidification Superalloy

K125L 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	-

K125L 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	-

K125L Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

K125L 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,	Φ8-1200mm*L	Forging, hot rolling and	Black, Rough Turning,

	Square Bar		cold rolling, Cast	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: