

This page is mainly introduced the Inconel 722 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Inconel 722, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Superalloys Inconel 722

Inconel 722 Standard Number:

ITEM	Standard Number	Descriptions
1	AMS 5411	Nickel Inconel 722 AMS 5541 Strip

Inconel 722 Chemical composition (mass fraction) (wt.%)

Chemical	Min.(%)	Max.(%)							
C		0.08							
Si		0.07							
Mn		1.00							
Cr	14.00	17.00							
Ni		Balance							
Cu		0.5							
Fe	5.00	9.00							
P									
S		0.01							
Ti	2	2.75							
Al	0.40	1.00							
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Physical Data : [top]

Density (lb / cu. in.) 0.298

Specific Gravity 7.95

Specific Heat (Btu/lb/Deg F - [32-212 Deg F]) 0.105

Electrical Resistivity (microhm-cm (at 68 Deg F)) 750

Melting Point (Deg F) 2550

Thermal Conductivity 102

Mean Coeff Thermal Expansion 5.8

Magnetic Permeability 1.002

Modulus of Elasticity Tension 31

Inconel 722 Physical Properties		
Tensile strength	115-234	σ_b /MPa
Yield Strength	23	σ 0.2 \geq /MPa
Elongation	65	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv \geq /J
HBS	123-321	-
HRC	30	-

Inconel 722 Mechanical Properties		
Tensile strength	231-231	σ_b /MPa
Yield Strength	154	σ 0.2 \geq /MPa
Elongation	56	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv \geq /J
HBS	235-268	-

HRC	30	-
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Inconel 722 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

Inconel 722 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: