

This page is mainly introduced the 1.4923 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4923, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.4923

1.4923 Standard Number:		
ITEM	Standard Number	Descriptions
1	EN 10088-1 (2005)	Stainless steels - Part 1: List of stainless steels
2	EN 10269 (2013)	Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties
3	EN 10302 (2008)	Creep resisting steels, nickel and cobalt alloys

1.4923 Chemical composition (mass fraction) (wt.%)									
Chemical		Min.(%)			Max.(%)				
C		0.18			0.24				
Si		0.18			0.24				
Mn		0.40			0.90				
P					0.025				
S					0.015				
Cr		11.0			12.5				
Ni		0.30			0.80				
Mo		0.80			1.20				
V		0.25			0.35				
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties.

The material 1.4923 is a high-temperature steel. This steel can be used up to a maximum temperature about 580 C° / 1076 F°. 1.4923 is often used in pressure equipment construction. The material is usually

supplied in the quenched and tempered condition. It should be noted here that there are two different strength levels. QT1 has a yield strength of at least 600 N/mm² and a tensile strength of 800 to 950 N/mm². 1.4923 must be used only in the treatment condition QT1 in pressure equipment. The tempered material according to QT2, the steel has a yield strength of at least 700 N/mm² and a tensile strength of 900 to 1050 N/mm². From 1,4923 screws are often made, since this material is readily available in thin dimensions.

1.4923 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	-

1.4923 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	-

1.4923 Heat Treatment Regime

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

1.4923 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 Specialsteel the specifications follows: