

This page is mainly introduced the 1.4903 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4903, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.4903

1.4903 Standard Number:		
ITEM	Standard Number	Descriptions
1	EN 10302: 2008	Creep resisting steels, nickel and cobalt alloys
2	EN 10028-2: 2009	Flat products made of steels for pressure purposes. Non-alloy and alloy steels with specified elevated temperature properties
3	EN 10222-2: 2000	Steel forgings for pressure purposes. Ferritic and martensitic steels with specified elevated temperature properties
4	EN 10216-2: 2014	Seamless steel tubes for pressure purposes. Technical delivery conditions. Non-alloy and alloy steel tubes with specified elevated temperature properties
5	EN 10253-2: 2007	Butt-welding pipe fittings. Non alloy and ferritic alloy steels with specific inspection requirements
6	EN 10088-1: 2005	Stainless steels. List of stainless steels

1.4903 Chemical composition(mass fraction)(wt.%)									
Chemical		Min.(%)				Max.(%)			
C		0.08				0.12			
Si						0.5			
Mn		0.3				0.6			
Ni						0.4			
P						0.025			
S						0.015			
Cr		8.0				9.5			
Mo		0.85				1.05			
V		0.18				0.25			
N		0.03				0.07			
Nb		0.06				0.10			
Al						0.03			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta

W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

1.4903

1.4903 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	-

1.4903 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	-

1.4903 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

1.4903 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: