

This page is mainly introduced the S30803 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of S30803, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel S30803

S30803 Standard Number:

ITEM	Standard Number	Descriptions
------	-----------------	--------------

S30803 Chemical composition (mass fraction) (wt.%)

Chemical		Min.(%)		Max.(%)					
C				0.025					
Si				0.40					
Mn				1.75					
P				0.045					
S				0.03					
Cr		19.0		21.0					
Ni		10.00		12.0					
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Austenitic wire for metal inert gas welding. It is suitable for welding corrosion resistant 18/8 CrNi steels for devices, vessels and parts in chemical, pharmacy and cellulose industry for temperature up to 350°C. Welded material has oxidation resistance up to 800°C and ductility to -196°C. For joining with base materials: 1. Alloyed corrosion resistant: DIN X5CrNi 18 9 or WN 1.4301; DIN X2CrNi 18 9 or WN 1.4306; DIN X10CrNiNb 18 9 or WN 1.4550;

The welding materials are classified according to chemical composition. The values contained in the mechanical properties are not requirements

of this specification. They are obtained from weld metal specified in A5.4.

S30803 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	-

S30803 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	-

S30803 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

S30803 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: