

This page is mainly introduced the AISI 202 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of AISI 202, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Stainless Steel AISI 202

AISI 202 Standard Number:

ITEM	Standard Number	Descriptions
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AISI 202 Chemical composition (mass fraction) (wt.%)

Chemical			Min.(%)				Max.(%)			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other	

AISI Type 202

Category	Steel
Class	Stainless steel
Type	Austenitic standard
Common Names	Chromium-Manganese-Nickel steel
Designations	United States: ASTM A276 , ASTM A314 , ASTM A412 , ASTM A429 , ASTM A473 , ASTM A666 , FED QQ-S-763 ,

FED QQ-S-766 , FED STD-66 ,
SAE 30202 , SAE J405 (30202) ,
UNS S20200

Composition

Element	Weight %
C	0.15
Mn	7.5-10.0
Si	1.00
Cr	17.0-19.0
Ni	4.0-6.0
P	0.06
S	0.03
N	0.25

Mechanical Properties

Properties		Conditions	
		T (°C)	Treatment
Density (×1000 kg/m ³)	7.8	25	
Poisson's Ratio	0.27-0.30	25	
Elastic Modulus (GPa)	190-210	25	

Tensile Strength (Mpa)	515	25	annealed (sheet, strip) more
Yield Strength (Mpa)	275		
Elongation (%)	40		
Reduction in Area (%)			

Thermal Properties

Properties		Conditions	
		T (°C)	Treatment
Thermal Expansion (10 ⁻⁶ /°C)	17.5	0-100 more	
Thermal Conductivity (W/m-K)	16.2	100 more	
Specific Heat (J/kg-K)	500	0-100	

Electric Properties

Properties		Conditions	
		T (°C)	Treatment
Electric Resistivity (10 ⁻⁹ W-m)	690	25	

AISI 202 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	-

AISI 202 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	-

AISI 202 Heat Treatment Regime

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

AISI 202 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	Φ 8-1200mm*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
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We can produce Stainless Steel the specifications follows: