

1.4305 303

X8CrNiS18-9	%C	%Si	%Mn	%P	%S	%N	%Cr	%Cu	%Nb	%Ni
	-	-	-	-	0.15	-	17.0	-	-	8.0
	≤0.10	≤1.00	≤2.00	0.045	0.35	≤0.11	19.0	≤1.00	-	10.0

STEEL PROPERTIES

1.4305 303 is a ferritic stainless steel, also known as AISI 303 or X8CrNiS18-9.

It has unique properties compared to other stainless-steel grades, primarily due to the addition of sulfur for improved machinability.

EQUIVALENT GRADES

EN 10088-3	1.4305	X8CrNiS18-9
AFNOR	Z10CNF18.09	
JIS	SUS303	
AISI	303	
BS	303S21	

APPLICATIONS

1.4305 303 is commonly used for components that require extensive machining, such as screws, nuts, bolts, and other fasteners. It's also used in the production of intricate parts for the automotive, aerospace, and electronics industries where precision machining is crucial.

HEAT TREATMENT

1.4305 303 is supplied in annealed +AT conditions.

Mechanical Values for 1.4305 303 at room temperature in EN 10088-3: 2014 in conditions 1C, 1E, 1D, 1X, 1G, 2D

Diameter (mm)	Heat Treatment Condition	Hardness HB max.	0.2% Proof strength min.	1% Proof strength min.	Tensile Strength Rm Mpa	Elongation after fracture A % Min.		Impact Energy (ISO-V) KV J Min.	
						(long)	(tr.)	(long)	(tr.)
-	+AT	230	-	-	-	-	-	-	-
<160	-	-	190	225	500 to 750	35	-	-	-

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Mechanical Values for 1.4305 303 Bright Bars at room temperature in EN 10088-3:2014 in conditions 2H, 2B, 2G, 2P

Diameter (mm)	Annealed		Heat Treatment Condition	0.2% Proof strength min.	Tensile Strength R _m Mpa	A5 % Min Elongation		Impact Energy (ISO-V) KV J Min.	
	R _m Mpa Max	HB Max				(long)	(tr.)	(long)	(tr.)
≤10	400	340	+AT	650	600-950	15	-	-	-
10 <t ≤ 16	400	340	+AT	600	600-950	15	-	-	-
16 <t ≤ 40	190	310	+AT	550	500-850	20	-	100	-
40 <t ≤ 63	190	290	+AT	550	500-850	20	-	100	-
63 <t ≤ 160	190	280	+AT	550	500-750	35	-	100	-

PRODUCTS OFFERED

- PEELED BARS
- BRIGHT BARS
- HEXAGONS
- SQUARES
- FLAT BARS
- WIRES