

This page is mainly introduced the 1.4305 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4305, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Data Table for Grades Stainless Steels 1.4305

1.4305 Standard Number:		
ITEM	Standard Number	Descriptions
1	DIN 17440 (2001)	Stainless steels - Technical delivery conditions for drawn wire
2	DIN 17440 (1972)	Stainless steels - Technical delivery conditions for drawn wire
3	DIN 17440 (1985)	Stainless steels - Technical delivery conditions for drawn wire
4	DIN EN 10088-1	Stainless steels - Part 1: List of stainless steels
5	DIN EN 10088-2	Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes
6	DIN EN 10088-3	Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes
7	DIN EN 10088-5	Stainless steels - Part 5: Technical delivery conditions for bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes
8	DIN EN 10297-2 (2005)	Seamless circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel

1.4305 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.10
Si		1.00
Mn		2.00
P		0.045
S	0.15	0.35
Cr	17.0	19.0
Ni	8.00	10.0
N		0.11
Cu		0.11

1.4305 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	-

1.4305 Mechanical Properties

Tensile strength	231-231	$\sigma b / MPa$
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	-

1.4305 Heat Treatment Regime

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

1.4305 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	$\Phi 8$ -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

We can produce Stainless Steels the specifications follows: