

This page is mainly introduced the 1.4016 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.4016, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1.4016

1.4016 Standard Number:		
ITEM	Standard Number	Descriptions
1	DIN 1654-5 (1989)	Cold heading and cold extruding steels; technical delivery conditions for stainless steels
2	DIN 17440 (1996)	Stainless steels - Technical delivery conditions for drawn wire
3	DIN 17455 (1985)	Welded circular tubes of stainless steels for general requirements; technical delivery conditions
4	DIN 17456 (1985)	Seamless circular tubes of stainless steels for general requirements; technical delivery conditions
5	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
6	DIN EN 10088-4	Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction 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
9	DIN EN 10088-1	Stainless steels - Part 1: List of stainless steels
10	DIN EN 10088-2	Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes
11	DIN 17456 (1985)	Seamless circular tubes of stainless steels for general requirements; technical delivery conditions
12	DIN 5512-3	Materials for rail vehicles - Steels - Part 3: Stainless steel flat products; Selected standard
13	DIN EN 10151	Stainless steel strip for springs - Technical delivery conditions
14	DIN EN 10250-4	Open die steel forgings for general engineering purposes - Part 4: Stainless steels
15	DIN EN 10263-5	Steel rod, bars and steel wire for cold heading and cold extrusion - Part 5: Technical delivery conditions for stainless steels
16	DIN EN 10296-2 (2005)	Welded circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel

1.4016 Chemical composition(mass fraction)(wt.%)

Chemical				Min.(%)				Max.(%)			
C								0.08			
Si								1.00			
Mn								1.00			
P								0.040			
S								0.015			
Cr				16.0				18.0			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta		
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other		

Cold heading and cold extruding steels; technical delivery conditions for stainless steels

1.4016 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	-

1.4016 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	-

1.4016 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
✓	✓	✓	✓	✓

1.4016 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: