

HASTELLOY ALLOY C276

Datasheet for Hastelloy Alloy C276

- Pipes & Tubes
- Sheets & Plates
- Bars & Rods, Forgings
- Fittings & Flanges
- Nuts & Bolts
- Valves



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Datasheet for <u>Hastelloy Alloy C276</u>

UNS N10276/2.4819

What is Hastelloy Alloy C276?

• Hastelloy C276 (UNS N10276 or DIN 2.4819), also known as Alloy C-276, is a nickel-molybdenum-chromium alloy with an addition of tungsten having excellent corrosion resistance in a wide range of severe environments. The high molybdenum content makes the alloy especially resistant to pitting and crevice corrosion. The low carbon content minimizes carbide precipitation during welding to maintain corrosion resistance in as-welded structures. Alloy C-276 is widely used in the chemical field and petrifaction field, such as the element of chloride organic and catalyzes system. This alloy is especially suit for high temperature environment, impure inorganic acid and organic acid (such as formic acid and acetic acid), sea-water corrosion environment.

Hastelloy Alloy C276 Product Specification

Product	Hastelloy C276 or Alloy C-276
Equivalents	UNS N10276, DIN 2.4819
Items	Pipe, Tubes, Tubing, Fittings, Flanges, Valves, Sheet, Square Bar, Threaded Bar, Plate, Hexagon Bar, Fasteners and Fixings, Round Bar, Flat Bar, Rod, Forgings, Wire
Size	1/4" - 60"
Ріре Туре	Seamless, Welded, ERW, Fabricated, Custom Size Pipes
Specifications	ASTM, ASME, DIN, GOST, JIS
Certification	EN 10204 3.1
Fittings Type	Butt Weld, Screwed & Socket Weld, Flanges, Instrumentation
Other Fittings	Elbows, Tees, Reducers, Caps, Stub Ends, Flanges (ANSI, Table E, D and H), Nuts, Bolts, Screws, Threaded Bars

Hastelloy Alloy C276 (UNS N10276 / 2.4819) Product Forms & Standards

• Hastelloy C276 Common Tradenames: Alloy C276, Hastelloy C, Inconel[®] C-276, NickelVac HC-276, Nicrofer 576, Hastelloy C276, UNS No. N10276

Products Form	Standard
Hastelloy Alloy C276 Sheet, Plate & Strip	ASTM B575
Hastelloy Alloy C276 Billet, Rod & Bar	ASTM B574, B472
Hastelloy Alloy C276 Coated Electrodes	DIN 2.4887
Hastelloy Alloy C276 Bare Welding Rods & Wire	DIN 2.4886
Hastelloy Alloy C276 Seamless Pipe & Tube	ASTM B622
Hastelloy Alloy C276 Welded Pipe & Tube	ASTM B619, B626
Hastelloy Alloy C276 Buttweld Fittings	ASTM B366, B462
Hastelloy Alloy C276 Forgings (Flange and Fittings)	ASTM B564, B462

Chemical Composition, Mechanical & Physical Properties of Alloy C276

Chemical Composition of Hastelloy Alloy C276

Grade	C-276		
%	Min	Мах	
Ni	Bal.		
Cr	14.5	16.5	
Мо	15	17	
Fe	4	7	
W	3	4.5	

Со	2.5
С	0.01
Mn	1
Si	0.08
V	0.35
Р	0.04
S	0.03

Physical Properties of Hastelloy Alloy C276

Density	8.9 g/cm ³
Melting point	1325-1370 °C

Mechanical Properties of Hastelloy Alloy C276

Hardness	Tensile strength, min, Mpa	Yield strength, 0.2% offset, min, Mpa	Elongation % min
87 HRB	690	310	40

• The mechanical properties of Hastelloy C-276 vary in different forms and heat treatment conditions.

Types of Nickel Alloys

ASTM/AISI	UNS No	EN	DIN	JIS
Incoloy 800	N08800	1.4558	X2NiCrAlTi3220	NCF2B

Incoloy 800H	N08810			
Incoloy 825	N08825	2.4858	NiCr21Mo	NCF825
Inconel 600	N06600	2.4816	LC-NiCr12Fe	NCF1B
Hastelloy B	N10001			N12MV
Hastelloy B2	N10665	2.4617	NiMo28	
Hastelloy C				
Hastelloy C276	N10276	2.4819	NiMo16Cr15W	NW 0276
Hastelloy C4	N06455	2.461		
Hastelloy C22	N06022	2.4602		
Inconel 625	N06625	2.4856	NiCr22Mo9Nb	
Inconel 718	N07718	2.4668		
Monel 400	N04400	2.4360		NW 4400
Nickel 200	N02200	2.4060		

• <u>Trademark Notice</u>: Some names are trade names and/or trademarks of specific manufacturers. We are not affiliated with any manufacturer(s). Orders will be filled to meet specifications from any available source(s). Names are listed solely for reference to help identify products consistent with listed specifications.

• *Hastelloy[®] is a registered trademark of Haynes International, Inc.

Manufacturing Hastelloy Alloy C276 Products

Hastelloy Alloy C276 Sheet	Hastelloy C276 Plate Cuttings/Profiles	Hastelloy C276 Nuts, Bolts and Fasteners
Hastelloy Alloy C276 Plate	Hastelloy Alloy C276 Foil, Coil	Hastelloy Alloy C276 Wire

Hastelloy Alloy C276 Blocks/Slabs	Hastelloy Alloy C276 Strip	Hastelloy Alloy C276 Ingot	
Hastelloy Alloy C276 Rod/Bar	Hastelloy Alloy C276 Pipes and Tubes	Hastelloy Alloy C276 Forgings and Castings	
Hastelloy Alloy C276 Flanges	Hastelloy Alloy C276 Forged Fittings	Hastelloy Alloy C276 Buttweld Fittings	

About Metallica Metals – The Steel Pipes Factory

- Established in 1975, the Metallica Metals Group (The Steel Pipes Factory) has its operations spread across major cities in India. We are a pioneer in the stainless steel pipes, nickel alloy products, titanium products, carbon steel pipes and alloy steel pipes manufacturing and processing industry. Our products including pipe fittings, flanges, pipes, sheet plates and valves are exported to over 70 countries across the world, while in India we have supplied to even the remote areas. With over 250 tons of sale in stainless steel and carbon steel pipes every day, Metallica has emerged as a prominent vendor for many buyers in India and Overseas
- More than 3000 tons ready from stock and new production ready in just a few weeks.
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Our Key Products

STAINLESS STEEL & NICKEL ALLOYS

INSTRUMENTATION TUBES & FITTINGS

PRODUCTS

Pure Nickel Alloys Monel Alloys (Ni-Cu Alloys) Inconel (Ni-Cr-Mo) Alloys Incoloy Alloys (Ni-Cr-Fe) Hastelloy Alloys Stainless Steel 304/304L Stainless Steel 309S/309H Stainless Steel 310/310S Stainless Steel 316/316L Stainless Steel 316/316L Stainless Steel 317/317L Stainless Steel 321/321H Stainless Steel 347/347H Instrumentation Tube Hydraulic Tubing Seamless Tubing Instrumentation Tube Fittings Double Compression Tube Fittings Precision Pipe Fittings Needle & Guage Valves Manifold Valves <u>Steel Sheet & Plate</u> <u>Steel Coil & Strip</u> <u>Steel Pipes</u> <u>Steel Tubes</u> <u>Electropolish Tube</u> <u>Heat Exchanger Tubes</u> <u>Steel Bars/Rods & Wire</u> <u>Fasteners (Nut, Bolt, Washer)</u> <u>Steel Angle Bars</u> <u>Hex Steel Bars</u> <u>Round Steel Bars & Rod</u> <u>Flat Steel Bars</u> <u>Forgings, Rings & Forged Blocks</u> <u>Stainless Steel 904L</u> <u>Duplex Steels (UNS S32205, UNS S31803)</u> <u>Super Duplex Steels (UNS S32760 / UNS S32750)</u> Stainless Steel 254 SMO (UNS S31254 / 1.4547) Stainless Steel Pipe Stainless Steel Seamless Pipe Stainless Steel Welded Pipe Stainless Steel Tubes Stainless Steel Furnace Tubes Stainless Steel Seamless Tubing Stainless Steel Heat Exchanger Tubes Large Diameter Pipe

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