

Stainless & Aluminium Services Ltd

Unit 1 SHOWELL ROAD IND ESTATE. BUSHBURY.WOLVERHAMPTON WV10 9LU

Tel 01902 423 674 FAX 01902 716 345 email: lloyd@stainlessandaluminium.co.uk

E-mail: accounts@stainlessandaluminium.co.uk Tel: 0121 531 1188

Grade 304/304L stainless steel (1.4301/1.4307) is the most widely used commercial grade of stainless steel supplied into numerous industry sectors

Overview

Grade 304/304L is the most widely used commercial grade of stainless steel supplied into numerous industry sectors. It has excellent corrosion resistance in ordinary atmospheric conditions, it is easily machined and is also easy to weld. Whilst performing well when exposed to relatively high temperatures, this grade of stainless steel like most austenitic stainless grades, also maintains its strength and toughness at sub-zero temperatures, making this an excellent choice for various applications and industries such as food & drink processing, petrochemical and construction.

Form of Supply

- | | | |
|-------------|---------------|-------------------------|
| * Sheet | * Square Bar | * Threaded Bar |
| * Plate | * Hexagon Bar | * Fasteners and Fixings |
| * Round Bar | * Flat Bar | * Rebar |
| * Angle | * Tube & Pipe | * Wire |

Nationwide Stainless are an independent Stockholder and Processor of 304/304L stainless steel. With a large stock range and excellent processing capabilities we are able to supply most projects whether stock items or custom made products. We can offer; Stock size plate & sheet, Stock length round bar, Cut to size plate & sheet, Cut to length round bar, Cold forming of plate & sheet and round bar, And any other additional machining requirements that may be necessary.

Applications

- | | | |
|------------------------|-------------------|-------------------------|
| * Pipelines | * Heat Exchangers | * Pressure Vessels |
| * Flanges and fittings | * Valves | * Processing Equipment |
| * General Construction | * Threaded Bar | * Fasteners and Fixings |

Corrosion Resistance

304/304L stainless steel has excellent corrosion resistance at normal temperatures in ordinary atmospheric conditions withstanding some natural acids, which is why this grade is used frequently in the food & drink processing industry. In more corrosive environments such as a marine environment, or an environment where higher chloride and chlorine content is a factor, a higher spec grade such as 316/316L or a Duplex grade may be a better option.

Stainless & Aluminium Services Ltd

Unit 1 SHOWELL ROAD IND ESTATE. BUSHBURY.WOLVERHAMPTON WV10 9LU

Tel 01902 423 674 FAX 01902 716 345 email: lloyd@stainlessandaluminium.co.uk

E-mail: accounts@stainlessandaluminium.co.uk Tel: 0121 531 1188

Typical Analysis

304L	Cr%	Ni%	C%	Si%	Mn%	P%	S%	Cu%	Fe%
MIN	17.5	8.0	-	-	-	-	-	-	-
MAX	19.5	10.5	0.03*	1.0	2.0	0.05	0.02	0.5	Bal

*0.08 max carbon content (C%) for 304 (1.4301)

Mechanical Properties

Properties quoted below are guideline figures only and should not be used for any design purposes.

-	0.2% Proof (Nmm²)	UTS (Nmm²)	Elongation (%)
304 (1.4301)	235	530 - 730	40
304L (1.4307)	200	500 - 700	40

Related Specs & Trade Names

1.4301, 1.4307, 304/304L, Grade 304, Grade 304L, Alloy 304, Alloy 304L, AISI 304L, TYPE 304, UNS S30400, UNS S30403, UNS S30409, X2CrNi18-9, ASTM A240, ASME SA240, 304 Stainless, 304, 304L, 304H,