

Stainless Steel

1.4404 (316L)

Datasheet Updated
05 August 2021

RANGE

Bar & Tube

Product Form	Imperial Sizes	Metric Sizes
Round Bar Bright Drawn H9	1/8" - 1"	3mm - 25mm
Round Bar Smooth Turned H9/H10	7/8" - 3"	25mm - 75mm
Round Bar Peeled K12/K16	3" - 16"	80mm - 340mm
Hexagon Bar	0.25" - 2.75"	-
Flat Bar - Hot Rolled	-	20mm x 10mm - 100mm x 25mm
Flat Bar - Rolled Edge	-	12mm x 3mm - 100mm x 12mm
Square Bar	-	12mm x 12mm - 50mm x 50mm
Angle	-	20 x 20 x 3mm - 100 x 100 x 10mm
Welded Ornamental Tube Mirror Polished 600 Grit	1/2" - 4"	30mm - 50mm
Welded Tube Satin polished 320 Grit	1/2" - 2"	16mm - 50mm
Hygienic Tube - Welded, annealed, polished BA, descaled	3/4" - 4"	- (16swg)

Product Form

Imperial Sizes

Metric Sizes

Hygienic Tube - Welded, polished, descaled

1" - 3"
(1.5mm wall)

-

Sheet

Polished sheet sizes are for mirror and super mirror finishes.

Polished Sheet options available: 240 Silicon, 240 Grit and various coating including Fiber Optic Laser for one or two sides.

Product Form

Sheet Sizes

Thicknesses

Polished Sheet

2000 x 1000

0.7mm - 3.0mm

Polished Sheet

2500 x 1250

0.7mm - 6.0mm

Polished Sheet

3000 x 1500

1.0mm - 6.0mm

Polished Sheet (Circle)

2500 x 1250

0.7mm - 1.5mm

Sheet Cold Rolled

2500 x 1250

4.0mm - 6.0mm

Sheet Cold Rolled

3000 x 1500

4.0mm - 6.0mm

Sheet Cold Rolled

4000 x 2000

2.0mm - 6.0mm

CPP Plate ID Finish

2000 x 1000

3.0mm - 6.0mm

CPP Plate ID Finish

2500 x 1250

3.0mm - 12.0mm

CPP Plate ID Finish

3000 x 1500

3.0mm - 12.0mm

CPP Plate ID Finish

4000 x 1500

10.0mm - 12.0mm

CPP Plate ID Finish

4000 x 2000

2.0mm - 12.0mm

Product Form	Sheet Sizes	Thicknesses
Quarto Plate ID Finish	-	5" - 125"

SPECIFICATIONS

Commercial	316L
EN	1.4404

Low carbon chromium-nickel-molybdenum austenitic stainless steel.

CHEMICAL COMPOSITION

EN 10088-2
1.4404 Steel

Element	% Present
Carbon (C)	0.00 - 0.03
Chromium (Cr)	16.50 - 18.50
Molybdenum (Mo)	2.00 - 2.50
Silicon (Si)	0.00 - 1.00
Phosphorous (P)	0.00 - 0.05
Sulphur (S)	0.00 - 0.02
Nickel (Ni)	10.00 - 13.00
Manganese (Mn)	0.00 - 2.00
Nitrogen (N)	0.00 - 0.11
Iron (Fe)	Balance

ALLOY DESIGNATIONS

Stainless steel grade 1.4404/316L also corresponds to the following designations **but may not be a direct equivalent**:

- UNS S31603
- 316S11

SUPPLIED FORMS

- Bar
- Fittings & Flanges
- Strip
- Angle
- Pipe
- Tube
- Sheet
- Plate

APPLICATIONS

- Food processing equipment
- Brewery equipment
- Chemical and petrochemical equipment
- Laboratory benches & equipment
- Coastal architectural panelling
- Coastal balustrading
- Boat fittings
- Chemical transportation containers
- Heat exchangers
- Mining screens
- Nuts and bolts
- Springs
- Medical implants

CHARACTERISTICS

- Low carbon version of 316 stainless steel and immune to grain boundary carbide precipitation (sensitisation)
- Suited to use in heavy gauge (over about 6mm) welded components
- Improved corrosion resistance compared to 304 particularly in chloride environments
- Excellent weldability
- Good formability

MECHANICAL PROPERTIES

EN 10088-3

Bar & Section Up to 160mm Dia/Thickness

Property	Value
Proof Stress	200 Min MPa
Tensile Strength	500 to 700 MPa
Elongation A50 mm	40 Min %
Hardness Brinell	215 Max HB

EN 10088-2

Sheet Up to 8mm Thick

Property	Value
Proof Stress	240 Min MPa
Tensile Strength	530 to 680 MPa
Elongation A50 mm	40 Min %

EN 10088-2

Plate From 8mm to 75mm Thick

Property	Value
Proof Stress	220 Min MPa
Tensile Strength	520 to 670 MPa
Elongation A50 mm	45 Min %

DISCLAIMER

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