

## UNS S31254 Stainless Steel

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**UNS S31254 stainless steel stockholders and suppliers, delivering to the whole of the UK.** West Yorkshire Steel are suppliers of UNS S31254, a high molybdenum austenitic stainless steel specification. Its high molybdenum content combined with elements such as nickel and copper gives UNS S31254 excellent resistance to pitting and crevice corrosion. In acids containing halides it offers good resistance to uniform corrosion and is superior to other austenitic stainless steel grades.

We welcome export enquiries for stainless steel. Contact our sales office and consult our [shipping policy](#) for further details.

### Related Specifications

6 Mo 31254 254SMO F44 1.4547 ASTM A182  
ASTM A479 ASTM A276 EN10272 ASME SA479

### Alternative stainless grades we supply

[17/4PH](#) | [FV520B](#) | [904L](#) | [310](#) | [316](#) | [321](#) | [440B](#) | [440C](#) | [420](#) | [410](#) | [416](#) | [431](#) | [S31803](#) | [S32760](#)

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## Form of Supply

West Yorkshire Steel are UNS S31254 stainless steel suppliers and stockholders of round bar. Diameters can be supplied sawn to your requirements. UNS S31254 plate can be plasma cut to size. Ground bar can be supplied, providing a high quality precision ground bar to your close tolerances.

- Sheet
  - Plate
  - Diameter
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## Applications

UNS S31254 stainless steel is ideally suited for use in halide environments and widely used in the chemical, marine, oil and gas industries. Typical applications include pumps, valves, heat exchangers, flanges and manifolds.

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## Analysis

Carbon	0.02% max	Chromium	19.50-20.50%
Manganese	1.00% max	Nickel	17.50-18.50%
Silicon	0.70% max	Molybdenum	6.00-7.00%
Phosphorous	0.03% max	Copper	0.50-1.00%
Sulphur	0.01% max	Nitrogen	0.18-0.25%

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## Corrosion Resistance

UNS S31254 offers higher resistance to abrasion, erosion and cavitation erosion than other austenitic stainless grades such as 316. UNS S31254 has excellent resistance to corrosion in sea water and concentrated halide environments, with good resistance to crevice corrosion in seawater.

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## Welding

Stainless steel UNS S31254 is readily weldable with welding procedures used for other austenitic stainless steel specifications. Welding should be carried out at the lowest heat possible as due to its austenite structure it can be prone to hot cracking. We recommend you contact your welding consumables supplier who should provide you full assistance and information on welding UNS S31254 stainless steel.

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## Typical Physical Properties

Temp °C	Density Kg/m <sup>3</sup>	Mean Coefficient of Thermal Expansion	Modulus of Elasticity kg/mm	Electrical Resistivity ?mm <sup>2</sup> /m	Specific Heat J/kg °C
20	8.0	16x10 <sup>-6</sup>	20000	0.5	500

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## Certification

Stainless steel UNS S31254 grade is available with BS EN 10204 3.1 mill certificate, please request when placing any orders.

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## Quality Assured Supply

UNS S31254 stainless is supplied in accordance with our ISO 9001:2015 registration.