

## UNS S32760 Super Duplex Stainless Steel

**UNS S32760 super duplex stainless steel stockholders and suppliers, delivering to the whole of the UK.** West Yorkshire Steel are suppliers of UNS S32760 super duplex stainless steel round bar, plate and sheet. S32760 super duplex grade has enhanced pitting and crevice corrosion resistance in comparison with the ordinary austenitic or duplex types and is suitable for use in aggressive environments. This is due to the higher additions of chromium, molybdenum and nitrogen. This austenitic stainless type grade combines high strength and good ductility with outstanding corrosion resistance qualities. UNS S32760 has excellent resistance to stress corrosion cracking and gives a high resistance to erosion corrosion and corrosion fatigue.

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

### Related Specifications

1.4501 BS EN 10088-3 ASTM A182 F55 X2CrNiMoCuWN25-7-4

### Alternative stainless grades we supply

[17/4PH](#) | [FV520B](#) | [S31254](#) | [904L](#) | [310](#) | [316](#) | [321](#) | [440B](#) | [440C](#) | [420](#) | [410](#) | [416](#) | [431](#) | [S31803](#)

## Form of Supply

West Yorkshire Steel are suppliers and stockholders of round bar. Also available as UNS S32760 plasma cut super duplex stainless plate and sheet. UNS S32760 duplex stainless steel ground steel diameter bar can be supplied, providing a high quality stainless precision ground bar to your required tolerances.

- Sheet
- Plate
- Diameter

## Applications

UNS S32760 super duplex is used in a wide range of marine, oil and gas environments. UNS S32760 is commonly used in the mining, marine, pharmaceutical, petrochemical and chemical engineering industries. Typical applications include flanges, pumps, valves, chokes, connectors and manifolds.

## Analysis

Carbon	0.03% max	Chromium	24.00-26.00%
Manganese	1.00% max	Nickel	6.00-8.00%
Silicon	1.00% max	Molybdenum	3.00-4.00%
Phosphorous	0.035% max	Copper	0.50-1.00%
Sulphur	0.015% max	Nitrogen	0.20-0.30%
		Tungsten	0.50-1.00%

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## Corrosion Resistance

Super duplex UNS S32760 offers high resistance to pitting corrosion, crevice corrosion and stress corrosion cracking. For optimum corrosion resistance a surface finish of pickled or machined is recommended.

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## Welding

Welding procedures are similar to those applied for conventional duplex stainless steel grades. Electric arc welding processes is suitable for UNS S32760 super duplex stainless steel, though oxyacetylene welding is not recommended due to the possibility of carbon pick up in the weld area. We recommend you contact your welding consumables supplier who should provide you full assistance and information of welding UNS S32760 super duplex.

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## Typical Physical Properties

Temp °C	Density Kg/m <sup>3</sup>	Mean Coefficient of Thermal Expansion at 20-100°C	Thermal Conductivity W.m <sup>-1</sup> .°C	Modulus of Elasticity GPa	Specific Thermal Capacity J.Kg <sup>-1</sup> .K <sup>-1</sup>
20	7.80	13.0x10 <sup>-6</sup>	15	200	500

## Heat Treatment

UNS S2760 1.4501 F55 cannot be hardened by conventional heat treatments, though this is a work hardening steel. Super duplex can be solution annealed at 1110-1140°C, water quench.

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### Minimum Mechanical Properties\*

Tensile UTS N/mm <sup>2</sup>	0.2% Proof Stress N/mm <sup>2</sup> min	Elongation % min	Hardness HB max	Impact J
730-930	530	25	290	100

\*Minimum Mechanical Properties at room temperature (160mm dia max - solution treated)

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### Certification

Super duplex stainless steel grade UNS S32760 is available with BS EN 10204 3.1 mill certificate, please request when placing any orders.

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### Quality Assured Supply

UNS S2760 super duplex stainless is supplied in accordance with our ISO 9001:2015 registration