



E STEEL SDN BHD (891338-A)

NO 3, Lorong Sungai Puloh 7/KU 6,
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Super Duplex S32760, F55, F53, 1.4501

SPECIFICATIONS: UNS S32760 | ASTM/ASME A240 / F53 | Werkstoff 1.4501

UNS S32760 super duplex stainless steel 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. Super Duplex S32760 has excellent resistance to stress corrosion cracking and gives a high resistance to erosion corrosion and corrosion fatigue.

Chemical Composition (average %)

C	Si	Mn	Cr	Mo	Ni	W	Cu	N	PREN
0.020	0.25	0.55	25.20	3.70	7.00	0.65	0.60	0.22	Min. 40

S32760 MECHANICAL PROPERTIES

Condition: Solution Annealed and Water Quenched.

U.T.S	109 KSI Min	(750 N/mm ²)
0.2% Proof Stress	80 KSI Min	(550 N/mm ²)
Elongation	25 %	
Red of Area	45 %	
CVN Impacts @ -46°C (-50°F)	45 Joules	(33 ft-lbf)

NACE MR0175 limits the supply hardness to 28 HRC max.



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properties of S32760 super duplex:

- Ferritic-austenitic stainless steel.
- Excellent corrosion resistance against general corrosion, stress corrosion cracking, corrosion fatigue, pitting, crevice and erosion corrosion and possessing very high mechanical strength properties.
- Good weldability, post weld heat treatment not necessary.
- Max. Temperature for long periods of service: 280°C (536°F) / (300°C/572°F possible for short periods).
- Surface condition for optimum corrosion resistance: pickled or machined.

Application of Duplex S32760

Components in offshore, waste water, sea water desalination and chemical plants with aggressive chloride-containing media e.g. heat exchangers, separator parts, compressor and pump components, turbine blades.

Welding

Weldability of super duplex 32760 is good. The welding procedures are similar to those applied for conventional duplex grades. Welding consumables for different welding methods are available.

Machining

The machine ability of super duplex 32760 is superior to comparable super duplex grades due to its optimised inclusion characteristic. Further details are available on request.