



Grade	Code	AISI	Duplex Stainless Steel
1.4501	S 32760 (X2CrNiMoCuWN25-7-4)	F55	

### Steel Properties

Material 1.4501 is one of the austenitic-ferritic, high-alloy, low-carbon chromium-nickel-molybdenum-tungsten (super duplex) steel. 1.4501 has high resistance to stress corrosion cracking in halide containing environments, high resistance to pitting and crevice corrosion, high resistance to general corrosion, high resistance to erosion corrosion and corrosion fatigue and high mechanical strength.

### Chemical Composition (1.4501)

C %	P %	Si %	Mn %	S %	Cr %	Mo %	Ni %	Cu %	W %
0,03 max.	0,03 max.	1,00 max.	1,00 max.	0,01 max.	24,00 – 26,00	3,00 – 4,00	6,00 – 8,00	0,50 – 1,00	0,50 – 1,00

### Mechanical Properties (EN 10088-3 1.4501 max diameter 160mm - Solution Treated)

Product Form	Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness [HB]
Bar & Rod	530	730 – 930	25	< 290

### Suitable For

1.4501 is used in the chemical, paper, cryogenic and power industries for parts and subassemblies such as pumps, shafts, bushes, aerial constructions, heat exchangers, coolers, chemical transport pipelines, special tanks, valves, and screws. The addition of copper - Cu increases the resistance of the species to sulfuric acid, which is also used in the mining industry for the sulfuric acid leaching equipment.

### Remarks

The Super Duplex steels described above are subject to hyperquenching at temperatures between 1020 and 1100 °C.

### Specification

1.4510, S 32760, X2CrNiMoCuWN25-7-4, AISI F55

### Norm

NACE MR0175