

1.4501

	%C	%Si	%Mn	%P	%S	%Cr	%Mo	%Ni	%N	%Cu	%W
X2CrNiMoCuWN25-7-4						24.0	3.00	6.00	0.20	0.50	0.50
	≤0.030	≤1.00	≤1.00	≤0.035	≤0.015	26.0	4.00	8.00	0.30	1.00	1.00

STEEL PROPERTIES

The 1.4501 is an austenitic-ferritic, high-alloy, low-carbon chromium-nickel-molybdenum-tungsten (super duplex) steel that is resistant to chloride. Due to higher contents of chromium and molybdenum in combination with tungsten, the PREN-values of the material are from 40 to >46 with good impact values and wear resistance properties at -40 ° C.

EQUIVALENT GRADES

EN 10088-3	1.4501	X2CrNiMoCuWN25-7-4
AISI	S32760	
AFNOR	Z3CNDUW25-07Az	
JIS	SM25Cr	
UNS	S32760	

APPLICATIONS

The main application of 1.4501 is in chemical and petrochemical industry and further in shipbuilding.

HEAT TREATMENT

1.4501 is offered in solution treated condition.

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Mechanical properties at room temperature for 1.4501 as per EN 10088-1 in the usual delivery condition

Flat products with thickness a	Heat Treatment Condition	Hardness HB max.	0.2% Proof strength MPa. min.	Tensile Strength R _m MPa.	A % Min. Long Products
a ≤ 160	+AT	290	530	730 to 930	25

Physical properties of 1.4501 as per EN 10088-3

Density Kg/dm ³	Mean Coefficient of thermal expansion 10 ⁻⁶ k ⁻¹ Between 20°C and (°C)					Thermal conductivity W/(m.K) 20°	Specific Heat capacity kJ(kg.K) 20°	Electrical resistivity 2 / m At 20°C	Magnetizability
	100°C	200°C	300°C	-	-				
7.8	13.0	13.5	14.0	-	-	15	-	0.8	Yes