



Chemical Composition, Mechanical and Physical Properties

Stainless Steel CrNiMo - SS316

Chemical Composition in %

C	Si	Mn	P	S	Cr	Ni	N	Mo
max.	max.	max.	max.	max.			max.	
0,08	1,0	2,0	0,045	0,030	16,5-18,5	10,0-13,5	0,11	2,0-2,5

Mechanical Properties at Room Temperature in the Annealed Condition

0,2% Yield Strength:	min. 240 N/mm ²
Tensile Strength:	min. 530 N/mm ²
Elongation AL 80:	min. 40%

Physical Properties (approx.)

Density (kg/dm ³):	7,98
Modulus of elasticity at 20° C kN/mm ² :	200
Thermal expansion between 20° C and 100° C:	16,5
200° C:	17,5
300° C:	17,5
400° C:	18,5
500° C:	18,5
(in 10 ⁻⁶ x K ⁻¹)	
Thermal conductivity at 20° C W/(m x K):	15
Specific heat at 20° C J/(kg x K):	500
Specific electrical resistance at 20° C Ohm x mm ² /m:	0,75
Melting point range:	1.430 - 1.450° C

As a rule austenitic steels are nonmagnetic when annealed, but in particular circumstances can also be lightly magnetic. Magnetism can increase when cold reduction is rising.