



Quality	X2CrNiMoN25-7-4	Austenitic-Ferritic	<i>Technical card 2018</i>
Number	1.4410	Stainless Steel (Duplex)	<i>Lucefina Group</i>

Chemical composition

C%	Si%	Mn%	P%	S%	Cr%	Ni%	N%	Mo%	
max	max	max	max	max					
0,03	1,00	2,00	0,035	0,015	24,0-26,0	6,0-8,0	0,24-0,35	3,0-4,5	EN 10088-3: 2014
+ 0.005	+ 0.05	+ 0.04	+ 0.005	+ 0.003	± 0.25	± 0.10	± 0.02	± 0.10	

Product deviations are allowed

Temperature °C

Melting range	Hot-forming	Solution annealing (Solubilization) +AT	Stress-relieving +SR	MMA welding – AWS electrodes pre-heating post welding not necessary not necessary cosmetic welding: 25 9 NL
1470-1430	1200-1000	1120-1040 water	350 air	

Chemical treatment - Pickling (52% HNO₃) + (65% HF) hot - Passivation 20 - 45% HNO₃ cold

Mechanical properties

Heat-treated material EN 10088-3: 2014 in conditions 1C, 1E, 1D, 1X, 1G, 2D

size		Testing at room temperature							
mm		R	Rp 0.2	A%	A%	Kv ₂ +20 °C	Kv ₂ -40 °C (L)	HBW ^{a)}	
from	to	N/mm ²	N/mm ² min	min (L)	min (T)	J min (L)	J min ^{b)}	max	
160	730-930	530	25	-	100	40	290	+AT solubilization	

^{a)} for information only (L) = longitudinal (T) = transversal ^{b)} EN 10272 : 2003

Forged UNI EN 10250-4: 2001

size		Testing at room temperature					
mm		R	Rp 0.2	A%	A%	Kv +20 °C	Kv +20 °C
from	to	N/mm ²	N/mm ² min	min (L)	min (T)	J min (L)	J min (T)
160	730-930	530	25	20	100	60	+AT solubilization

Minimum yield stress and tensile strength values at high temperatures on material +AT

Rp 0.2	N/mm ²	450	420	400	380	EN 10088-3:2014
R	N/mm ²	680	660	640	630	EN 10272:2007
Prova a	°C	50	100	150	200	250

Thermal expansion	10 ⁻⁶ • K ⁻¹	▶	13.0	13.5	14.0
Modulus of elasticity	longitudinal GPa	200	194	186	180
Poisson number	ν	0.25			
Electrical resistivity	Ω • mm ² /m	0.80			
Electrical cond.	Siemens•m/mm ²	1.25			
Specific heat	J/(Kg•K)	500			
Density	Kg/dm ³	7.80			
Thermal conductivity	W/(m•K)	15.0			
Relative magnetic permeability	μ _r	magnetizzabile			
°C		20	100	200	300

The symbol ▶ indicates temperature between 20 °C and 100 °C, 20 °C and 200 °C

Corrosion resistance	Atmospheric		Chemical			x pitting, crevice, stress corrosion, organic acids
	Fresh water	industrial marine	medium	oxidizing	reducing	
x	x	x	x	x		

Magnetic	yes
Machinability	difficult
Hardening	cold-drawn and other cold plastic deformations
Service temperature	not recommended for applications which require long exposures to temperatures in excess 300 °C

Europe	USA	USA	China	Russia	Japan	India	R. Corea
EN	UNS	ASTM	GB	GOST	JIS	IS	KS
X2CrNiMoN25-7-4	S32750	Type 2507	022Cr25Ni7Mo4N				