Quality	**X2CrNiMoN25-7-4**	**Austenitic-Ferritic Stainless Steel** (Duplex)	*Technical card 2018*
Number	**1.4410**		*Lucefin Group*

Chemical composition

C% max	Si% max	Mn% max	P% max	S% max	Cr%	Ni%	N%	Mo%	
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*
1470-1430	1200-1000	1120-1040 water	350 air	not necessary	not necessary

cosmetic welding: 25 9 NL

Chemical treatment ▪ *Pickling* (52% HNO_3) + (65% HF) hot ▪ *Passivation* 20 - 45% HNO_3 cold

Mechanical properties

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

size mm from	to	Testing at room temperature R N/mm²	Rp 0.2 N/mm² min	A% min (L)	A% min (T)	Kv_2 +20 °C J min (L)	Kv_2 -40 °C (L) J min b)	HBW a) 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 mm from	to	Testing at room temperature R N/mm²	Rp 0.2 N/mm² min	A% min (L)	A% min ((T)	Kv +20 °C J min (L)	Kv +20 °C 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/mm²		450	420	400	380	EN 10088-3:2014
R	N/mm²		680	660	640	630	EN 10272:2007
Prova a	**°C**	**50**	**100**	**150**	**200**	**250**	

Thermal expansion	$10^{-6} \cdot K^{-1}$		►	13.0	13.5	14.0
Modulus of elasticity	longitudinal	GPa	200	194	186	180
Poisson number	*v*		0.25			
Electrical resistivity	Ω • mm²/m		0.80			
Electrical cond.	Siemens•m/mm²		1.25			
Specific heat	J/(Kg•K)		500			
Density	Kg/dm³		7.80			
Thermal conductivity		W/(m•K)	15.0			
Relative magnetic permeability		μr	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 EN	**USA** UNS	**USA** ASTM	**China** GB	**Russia** GOST	**Japan** JIS	**India** IS	**R. Corea** KS
X2CrNiMoN25-7-4	S32750	Type 2507	022Cr25Ni7Mo4N				