



EN 1.4162 UNS S32101 LDX 2101[®]

LDX 2101[®] is a low Ni-alloyed duplex with balanced chemistry of chromium, molybdenum and nitrogen content to achieve good resistance to localized and uniform corrosion. The duplex microstructure contributes to the high strength and high resistance to stress corrosion cracking.

EN 1.4162 / UNS S32101 / LDX 2101®

Approvals: NACE MR0175/ ISO 15156-3:2015, PED 97/ 23/ EC, CPR 305/ 2011/ EU

Product Standards: EN 10088-2, EN 10088-4, ASTM A240, EN ISO 9445-2

APPLICATIONS

The main applications are for details with corrosion resistance better than 304L. LDX 2101® is characterized by: Ideal for tank production where corrosion strength is sufficient. Good resistance to stress corrosion cracking. Good resistance to general corrosion. High mechanical strength. High resistance to erosion corrosion and corrosion fatigue.

Heat Treatment

Solution annealing at 1020 – 1100°C followed by water quenching.

Weldability

Very good.

Duplex steels have good weldability. Due to risk of embrittlement, LDX 2101® should not be used at temperatures above 250°C. Very price stable high strength alloy.

CHEMICAL COMPOSITION

Weight %	C	Si	Mn	S	P	Cr	Ni	N	Cu
Min.			4,00			21,00	1,35	0,20	0,10
Max.	0,040	1,00	6,00	0,015	0,035	22,00	1,90	0,25	0,80

MECHANICAL PROPERTIES: PLATE

	Yield strength Rp0.2, MPa	Tensile strength Rm, MPa	Elongation [%]	Hardness [HB]	Impact, Charpy-V, -40°C [J]	Pre	Surface
CR (Coil)	≥ 530	≥ 700	≥ 30		≥ 50	26	2B/2E
HR (Coil)	≥ 450	≥ 650	≥ 30	≤ 290	≥ 50	26	1D
(Quarto)	≥ 450	≥ 650	≥ 30	≤ 290	≥ 27	26	1D

PLATE

1,5 x 1500 x 3000 mm	3 x 2000 x 6000 mm	5 x 2000 x 4000 mm	12 x 2000 x 6000 mm
1,5 x 1500 x 6000 mm	4 x 1500 x 3000 mm	5 x 2000 x 6000 mm	15 x 2000 x 6000 mm
2 x 1500 x 3000 mm	4 x 1500 x 6000 mm	6 x 1500 x 3000 mm	20 x 2000 x 6000 mm
2 x 1500 x 6000 mm	4 x 2000 x 1000 mm	6 x 1500 x 6000 mm	25 x 2000 x 6000 mm
2 x 2000 x 6000 mm	4 x 2000 x 4000 mm	6 x 2000 x 1000 mm	30 x 2000 x 6000 mm
3 x 1500 x 3000 mm	4 x 2000 x 6000 mm	6 x 2000 x 4000 mm	40 x 2000 x 6000 mm
3 x 1500 x 6000 mm	5 x 1500 x 3000 mm	6 x 2000 x 6000 mm	50 x 2000 x 6000 mm
3 x 2000 x 1000 mm	5 x 1500 x 6000 mm	8 x 2000 x 6000 mm	
3 x 2000 x 4000 mm	5 x 2000 x 1000 mm	10 x 2000 x 6000 mm	

COIL

1500 mm	1,5 mm	2 mm	3 mm	4 mm	5 mm	6 mm
2000 mm	3 mm	4 mm	5 mm	6 mm		