



# LDX 2101

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
LDX 2101®	1.4162	S32101	–	–	–

## Standard designations

EN ISO 3581 E 23 7 N L R

## Characteristics

AVESTA LDX 2101 is designed for welding the ferritic-austenitic (duplex) stainless steel Outokumpu LDX 2101. LDX 2101 is a “lean duplex” steel with excellent strength and medium corrosion resistance. The steel is mainly intended for applications such as civil engineering, storage tanks, containers etc.

AVESTA LDX 2101 provides a ferritic-austenitic weldment that combines many of the good properties of both ferritic and austenitic stainless steels. The duplex microstructure gives high tensile strength and hereby also good resistance to stress corrosion cracking.

AVESTA LDX 2101 is “over alloyed” with respect to nickel to ensure the right ferrite balance in the weld metal.

Outokumpu LDX 2101 should be welded as an ordinary austenitic stainless steel, i.e. high amperages should be avoided and the material should be allowed to cool to below 150°C between passes.

## Welding data

DC+ or AC	Diam. mm	Current, A
	2.5	50 – 80
	3.25	70 – 120
	4.0	100 – 160

## Weld deposit data

Metal recovery approx. 110%.

## Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	Mo	N
0.04	0.8	0.7	23.5	7.0	0.3	0.14

Ferrite 45 FN WRC-92

## Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	640 N/mm <sup>2</sup>	–
Tensile strength $R_m$	800 N/mm <sup>2</sup>	–
Elongation $A_5$	25 %	–
Impact strength KV		
+20°C	45 J	
–40°C	28 J	
Hardness approx.	260 Brinell	

**Interpass temperature:** Max. 150°C.

**Heat input:** 0.5 – 2.0 kJ/mm.

**Heat treatment:** Generally none (in special cases quench annealing at 1020 – 1080°C).

**Structure:** Austenite with 30 – 65% ferrite.

**Scaling temperature:** Approx. 850°C (air).

**Corrosion resistance:** Good resistance to general corrosion. Corrosion resistance is on a level with or better than AISI 304.

## Approvals

- CE
- TÜV

## Welding positions

