

## Classification

EN ISO 14343-A	AWS A5.9
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## Characteristics and typical fields of application

Avesta LDX 2101 was designed for welding of ferritic-austenitic Duplex steels like Outokumpu 2101. Avesta LDX 2101 is a „low-alloyed“ Duplex steel with a high strength and ordinary corrosion resistance. This filler metal is over-alloyed with Ni to ensure the correct ferrite content in the all weld metal. This steel is normally used for constructions, storage tanks, and container tanks.

### Corrosion resistance:

A good corrosion resistance in general, comparable with – or little higher than ASTM 304.

Structure: Austenite with 35 – 65 % ferrite.

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

## Base materials

Similar duplex stainless steels and ferritic-austenitic steels with higher strength.

Outokumpu 2101

1.4162 - UNS S32101

## Typical analysis of the solid wire (wt.-%)

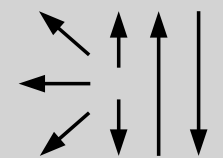
	C	Si	Mn	Cr	Ni	Mo	N	Ferrit
wt.-%	0.02	0.4	0.5	23.0	7.0	< 0.5	0.14	40 FN (WRC-92)

## Mechanical properties of all-weld metal

Heat treatment	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-40 °C
u	550	730	30	180	180

u untreated, as welded – shielding gas Ar (99,95 %)

## Operating data

	Polarity DC ( + )	<b>Shielding gas:</b> Ar 99,5 % + 2 % N <sub>2</sub> N <sub>2</sub> improves the mechanical properties. Gas flow rate 4 – 8 l	ø (mm)
			1.6
			2.0
			2.4
			3.2

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

Interpass temperature: Max. 150 °C.

Heat input: 0.5 – 2.5 kJ/mm.