

Classifications

EN ISO 14343-A

AWS A5.9

W 23 7 N L

ER2307

Characteristics and typical fields of application

Böhler CN 24/9 LDX-IG is designed for welding the ferritic-austenitic lean- duplex stainless steels with excellent strength and medium corrosion resistance. The steel is mainly intended for applications such as civil engineering, storage tanks, containers etc. Böhler CN 24/9 LDX-IG is over alloyed with respect to nickel to ensure the right ferrite balance in the weld metal. The weldability is excellent. However, duplex steels are somewhat more difficult to weld compared to austenitic steels such as 316L, mainly with respect to fluidity and penetration into the parent metals. Welding without filler metal (TIG dressing) is not recommended. The corrosion resistance is comparable with AISI 304.

Base materials

1.4162 X2CrMnNiN21-5-1, UNS S32101

1.4362 X2CrNiN23-4, UNS S32304, and other comparable materials

Typical analysis of the TIG rods (wt.-%)

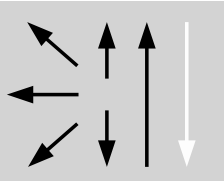
	C	Si	Mn	Cr	Ni	Mo	N	Ferrite acc. to WRC-92
wt-%	0.02	0.40	0.5	23.0	7.0	< 0.5	0.14	~ 40 FN

Mechanical properties of all-weld metal

Condition	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 (≥ 450)	730 (≥ 570)	30 (≥ 20)	180	180 (≥ 32)

u untreated, as welded – shielding gas Argon

Operating data

	Polarity: DC (-)	Shielding gases: 100 % Argon Argon + max. 2 % N ₂	Rod marking: front: ✦ W 23 7 N L back: LDX	∅ (mm) 1.6
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Interpass temperature should not exceed 150 °C.

Heat input: 0.5 – 2.0 kJ/mm

Approvals

CE