

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
W 25 9 4 N L	SS2594	ER2594

Characteristics and typical fields of application

GTAW-rod highly suitable for welding ferritic-austenitic superduplex steels. By virtue of specific alloy composition the deposit has, in addition to high tensile strength and toughness, also excellent resistance to stress corrosion cracking and pitting corrosion. The operating temperature range is -50°C up to 250°C .

Well suited for the conditions in the offshore field

Base materials

25 % Cr-Superduplex steels e.g.
1.4501 X2CrNiMoCuWN 25-7-4
UNS S 32750, S 32760
ZERON 100, SAF 25/07, FALC 100

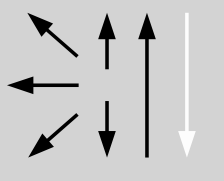
Typical analysis of the TIG rods (wt.-%)

	C	Si	Mn	Cr	Ni	Mo	N	Cu	W	PRE _N
wt-%	0.02	0.3	0.7	25.2	9.2	3.6	0.22	0.6	0.62	≥ 40

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	-50 °C	-60 °C
u	620 (≥ 550)	760 (≥ 620)	27 (≥ 18)	200	160	150 (≥ 32)
u untreated, as welded – shielding gas Argon						

Operating data

	Polarity: DC (-)	Shielding gases: Argon+ 2 – 3 % N ₂ 100 % Argon	Rod marking: front: ⚡ W 25 9 4 NL	ø (mm) 2.0 2.4
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Welding of root pass with „thick layer“. Next two passes with thin layers and low heat input to avoid overheating and precipitations