

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.
W 23 12 L	SS309L	ER309L	1.4332

Characteristics and typical fields of application

Stainless. Well suited for depositing intermediate layers when welding clad materials. Favorably high Cr- and Ni-contents, low C content. For joining unalloyed/low-alloy steels/cast steel grades or stainless heat resistant Cr-steels/cast steel grades to austenitic steels/cast steel grades. For depositing intermediate layers when welding the side of plates clad with low-carbon – non-stabilized and stabilized CrNi(MoN)-austenitic metals.

Application temperature max. 300°C (572 °F).

Base materials

TÜV-certified parent metal.

Combinations between 1.4583 – X10CrNiMoNb18-12 and ferritic steels up to S355N.

Joints of and between HSLA, unalloyed and alloyed quenched and tempered steels, stainless, ferritic Cr and austenitic Cr-Ni steels, high manganese steels as well as claddings: for the first layer of chemical resistant weld claddings on ferritic-pearlitic steels up to fine grained structural steels S500N, in steam boiler and pressure boiler construction, as well as creep resistant fine grained structural steels 11NiMoCr4-7 acc. to leaflet "SEW-Werkstoffblatt" No. 365, 366, 20MnMoNi5-5 and G18NiMoCr3-7.

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

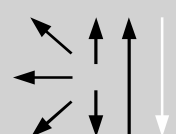
	C	Si	Mn	Cr	Ni
wt-%	0.02	0.5	1.7	24.0	13.0

Structure: Austenite with part ferrite

Mechanische Gütewerte des Schweißgutes

Heat-treatment	Yield strength R _{p0.2}	Yield strength R _{p1.0}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V CVN J
	MPa	MPa	MPa	%	+20 °C
aw	430	460	580	30	80

Operating data

	Polarity: DC (–)	Shielding gas: (EN ISO 14175) I1	Marks: ✦ W 23 12 L / ER309L	ø mm	L mm
				1.6	1000
				2.0	1000
				2.4	1000
				3.2	1000

Approvals

TÜV (12941), CE