

DATASHEET RW 309 LSI – TIG Rods

Description and Applications

Austenitic stainless steel welding wire suitable to weld different parent metals like AISI 304 to carbon steels or similar steels in wrought and cast form. It can also be used to weld AISI 304 and base metals of similar compositions under severe corrosion conditions requiring a higher alloy weld metal. The low C content reduces the possibility of intergranular carbide precipitation and therefore increases the resistance to intergranular corrosion.

Equivalent to RW 309 L except for higher Si content. This improves the arc stability, the weld metal fluidity and the melt run appearance. If the dilution by the base metal produces a low ferrite or fully austenitic weld, the hot cracking sensitivity of the weld is higher than that of the RW 309 L.

Rodacciai denomination and approximate equivalent with other standards

	RW 309 LSi
EN ISO 14343-A:2009	W 23 12 LSi
EN ISO 14343-B:2009	SS 309 LSi
AWS A5.9-2012	ER 309 LSi
DIN Werkstoff Nr.	1.4332

Approvals

CWB

Filler metal properties

Chemical composition (nominal) in %

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Co	N	Nb	B
min		1,50	0,65	0,005		23,00	13,00						
max	0,020	2,00	1,00	0,015	0,020	24,00	14,00	0,30	0,20	0,20	0,060	0,050	0,003

Metal properties

The following data are typical for non-heat treated weld metal from TIG welding with I1 DIN EN ISO 14175 as shielding gas.

Expected minimum mechanical properties of all weld metal

Temperature	°C	20	-110
Yield strength, Rp 0,2	N/mm ²	440	
Tensile strength, Rm	N/mm ²	600	
Elongation, A5	%	37	
Impact energy, ISO – V	J	160	90

Sizes and marking

Standard sizes : diam. 1,00 – 1,20 – 1,60 – 2,00 – 2,40 – 3,20 and 4,00 mm

Tolerances on diameter : + 0,01 / - 0,04 mm

Marking : Each rod is stamped one end with ER 309LSI and RW 1.4332

Packaging forms

White carton boxes of 5 kg.

Red, white or blue coloured cardboard tubes of 5 kg.

Wooden crates of 250 kg.