

DATASHEET RW 308 LSI – TIG rods

Description and Applications

Austenitic stainless steel welding wire suitable to weld base metals of similar compositions like AISI 304 and AISI 304L. Equivalent to RW 308 LAWS except for the higher Si content. This improves the arc stability, the base metal fluidity and the melt run appearance. If the dilution by the base metal produces a low ferrite or fully austenitic weld, the crack sensitivity of the weld is somewhat higher than that of a lower Si content weld metal.

Rodacciai denomination and approximate equivalent with other standards

	RW 308 LSI
EN ISO 14343-A:2009	W 19 9 LSi
EN ISO 14343-B:2009	SS 308 LSi
AWS A5.9-2012	ER 308 LSi

Approvals

TÜV
DB
CE
CWB

Filler metal properties

Chemical composition (nominal) in %

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Co	Al	Ti	N	Ca	Nb	B	Ce
min		1,50	0,65			19,50	10,00										
max	0,023	2,04	1,00	0,015	0,025	20,50	11,00	0,30	0,30	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 shielded gas.

Expected minimum mechanical properties of all weld metal

Temperature	°C	20	-110	-196
Yield strength, Rp 0,2	N/mm ²	465		
Yield strength, Rp 1,0	N/mm ²	490		
Tensile strength, Rm	N/mm ²	630		
Elongation, A5	%	35		
Reduction of area Z	%	60		
Impact energy, ISO – V	J	261	162	59

Welding parameters

Wire diameter	3,2 mm
Current	180 – 190 A
Voltage	16 V
Gas	13 l/min
Type of current and polarity	Direct current, electrode negative
Intermediate temperature	max. 180 °C
Welding positions	downhand, horizontal/vertical, vertical upward, overhead
Wall thickness	max. 20 mm
Base metals	X2 CrNi 18 9 X5 CrNi 18 10 X6 CrNiTi 18 10 X6 CrNiNb 18 10

Highest operating temperature, in the short term range, as for base metal, but not higher than 350 °C

Lowest operating temperature, as for base metal, but not lower than – 196°C

Resistance to intergranular corrosion proven in accordance with DIN 50914

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 308LSI and RW 1.4316

Packaging forms

White carton boxes of 5 kg.

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

Wooden crates of 250 kg.