

DATASHEET RW 308 LSI – MIG wire

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	G 19 9 LSi
EN ISO 14343-B:2009	SS 308 LSi
AWS A5.9-2012	ER 308 LSi
DIN Werkstoff Nr.	1.4316

Approvals

TÜV
DB
CE
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			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 MIG welding with argon + 3 % oxygen as shielded gas.

Expected minimum mechanical properties of all weld metal

Temperature	°C	20	-110	-196
Yield strength, Rp 0,2	N/mm ²	390		
Yield strength, Rp 1,0	N/mm ²	415		
Tensile strength, Rm	N/mm ²	570		
Elongation, A5	%	35		
Reduction of area Z	%	40		
Impact energy, ISO – V	J	140	84	52

Welding parameters

Wire diameter	1,2 mm
Current	250 – 280 A
Voltage	28 V
Gas	14 l/min
Type of current and polarity	Direct current, electrode positive
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	

Recommended welding parameters

Wire diameter (mm)	Wire feed (m/min)	Current (A)	Voltage (V)	Gas (l/min)
Short-arc welding				
0.8	4-8	40-120	15-19	12
1.0	4-8	60-140	15-21	12
Spray-arc welding				
1.0	6-12	140-220	23-28	18
1.2	5-9	180-260	24-29	18
1.6	3-5	230-350	24-30	18

Packaging forms

Blue metallic wire baskets BS300 of 15 kg.

Plastic spools D300 of 12,5 kg for diam. 0,80 mm and of 15 kg for the other diameters.

Plastic spools D200 of 5 kg.

Drum packaging of about 150 kg for diameter 0,80 mm and of about 250 kg for the other diameters.

Diameters : 0,80 – 0,90 – 1,00 – 1,20 – 1,60 mm.