

DATASHEET RW 308 LAWS – MIG wire

Description and Applications

Austenitic stainless steel welding wire suitable to weld base metals of similar compositions like AISI 304 and AISI 304L. Low C content reduces the possibility of intergranular carbide precipitation and therefore increases the resistance to intergranular corrosion.

Rodacciai denomination and approximate equivalent with other standards

	RW 308 LAWS
EN ISO 14343-A:2009	G 19 9 L
EN ISO 14343-B:2009	SS 308 L
AWS A5.9-2012	ER 308 L

Approvals
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	0,30			19,50	9,50										
max	0,030	2,04	0,60	0,020	0,025	21,00	11,00	0,30	0,30	0,30			0,060		0,050	0,0018	

Metal properties

The following data are typical for non-heat treated weld metal from MIG welding with M1 DIN EN ISO 14175 as shielded gas.

Expected minimum mechanical properties of all weld metal

Temperature	°C	20	-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	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
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. 0,60 – 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 : 0,60 – 0,80 – 0,90 – 1,00 – 1,20 – 1,60 mm.