

DATASHEET RW 312 – MIG wire

Description and Applications

Stainless steel welding wire suitable for welding dissimilar parent metals such as carbon steel to stainless steel, particularly those grades with high Ni content. RW 312 gives a two phase weld deposit with high percentages of ferrite in an austenite matrix. Even with considerable dilution by austenite forming elements, such as Ni, the microstructure remains two phase and thus highly resistant to hot cracking. Not recommended for applications operating above 300 °C or for welds to be post weld heat treated.

Rodacciai denomination and approximate equivalent with other standards

RW 312

EN ISO 14343-A:2009 W 29 9
EN ISO 14343-B:2009 SS 312
AWS A5.9-2012 ER 312

Filler metal properties

Chemical composition (nominal) in %

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Co	N	Nb	B
min	0,090	1,50	0,30			29,50	8,50						
max	0,120	2,00	0,50	0,015	0,020	31,00	10,00	0,25	0,20	0,30	0,060	0,050	0,003

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
Yield strength, Rp 0,2	N/mm ²	450
Tensile strength, Rm	N/mm ²	650
Elongation, A5	%	15
Impact energy, ISO – V	J	40

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.