

# RODA ALLOY 82



 **Rodacciai**  
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## DESCRIPTION AND APPLICATIONS

Roda Alloy 82 is a Ni-Cr alloy consumable with addition of Nb, used for GTAW, GMAW of Ni-Cr alloys (i.e. UNS N06075, UNS N07080, UNS N08330), of Ni-Cr-Fe alloys (i.e. UNS N06600, UNS N06601, UNS N06690) and of Ni-Fe-Cr alloys (i.e. UNS N08800, UNS N08811). It is also used for overlaying on steels and for dissimilar welding, joining stainless steels with carbon steel and stainless steels with nickel alloys. It can also be used for cryogenic applications.

## APPROXIMATE EQUIVALENT WITH OTHER STANDARDS

Rodacciai Denomination	Rodaalloy 82
EN ISO 18274:2010	Ni 6082 - NiCr20Mn3Nb
AWS A5.14/A5.14M: 2018	ERNiCr-3 - Ni6082
DIN Werkstoff Nr.	2.4806

## FILLER METAL PROPERTIES

Typical Chemical composition (nominal) in %

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Co	Ti	Fe
0,03	3	0,1	0,005	0,005	20	70	2,5	0,06	0,05	0,40	≤1,5

## EXPECTED MINIMUM MECHANICAL PROPERTIES AS WELDED

Temperature		20°C	-196°C
Yield strength, Rp 0,2	MPa min	480	
Tensile strength, Rm	MPa min	750	
Elongation, A5	% min	35	

## TYPICAL WELDING PARAMETERS

Process	Diameter		Volt	Ampere	Gas
	mm	inches			
MIG	1,0	0.035	26-32	160-280	75% Ar + 25% He
	1,2	0.045	28-32	180-300	75% Ar + 25% He
	1,6	1/16	29-33	200-300	75% Ar + 25% He
TIG	1,6	1/16	14-18	90-150	100% Ar
	2,4	3/32	15-20	150-255	100% Ar
	3,2	1/8	15-20	200-370	100% Ar

Welding positions down hand, horizontal/vertical, vertical upward, overhead.  
Highest operating temperature, in the short term range, as for base metal, but not

higher than 1000 °C. Lowest operating temperature, as for base metal, but not lower than -196°C

## SIZES AND MARKING

Standard sizes : diam. mm 0,80 – 0,90 – 1,00 – 1,14 – 1,20 – 1,60 – 2,00 – 2,40 – 3,20 – 4,00  
diam. inches 0.030 – 0.035 – 0.045 – 1/16 – 3/32 – 1/8 – 5/32

## PACKAGING FORMS

TIG - White carton boxes of 5 kg / 10 Lb. Red, white or blue coloured cardboard tubes of 5 kg / 10 Lb. Wooden crates of 250 kg / 660 Lb.  
MIG - Blue metallic wire baskets BS300 of 15 kg / 33 Lb. Plastic spools D300 of 12,5 kg / 25 Lb for diam. 0,80 mm and of 15 kg / 33 Lb for the other diameters.  
Plastic spools D200 of 5 kg / 10 Lb.

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