

# RODA ALLOY 276



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# DATASHEET RODA ALLOY 276 – MIG – TIG



## DESCRIPTION AND APPLICATIONS

Roda Alloy 276 is a Ni-Cr-Mo alloy consumable, used for GTAW, GMAW of Ni-Cr-Mo alloys ( especially UNS N10276). The presence of chromium, molybdenum and tungsten gives a good corrosion resistance to pitting and crevice. It can be also used for dissimilar welding, joining UNS N10276 to other nickel-base alloys, to stainless steels or to low alloy steels. It also suitable for steel surfacing.

## APPROXIMATE EQUIVALENT WITH OTHER STANDARDS

Rodacciai Denomination	Rodaalloy 276
EN ISO 18274:2010	Ni 6276 - NiMo16Cr15Fe6W4
AWS A5.14/A5.14M: 2018	ERNiCrMo-4 - N10276
DIN Werkstoff Nr.	(2.4819)

## FILLER METAL PROPERTIES

Typical Chemical composition (nominal) in %

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	W	V	Co	Fe
≤0,010	0,5	0,05	≤0,005	0,010	16	58	16	0,1	3,5	≤0,05	≤0,05	5,8

## EXPECTED MINIMUM MECHANICAL PROPERTIES AS WELDED

Temperature		20°C	-196°C
Yield strength, Rp 0,2	MPa min	520	
Tensile strength, Rm	MPa min	720	
Elongation, A5	% min	40	

## TYPICAL WELDING PARAMETERS

Process	Diameter		Volt	Ampere	Gas
	mm	inches			
MIG	1,0	0.035	24-28	150-250	75% Ar + 25% He
	1,2	0.045	24-28	180-280	75% Ar + 25% He
	1,6	1/16	26-30	200-300	75% Ar + 25% He
TIG	1,6	1/16	12-15	100-150	100% Ar
	2,4	3/32	14-18	120-180	100% Ar
	3,2	1/8	14-18	140-200	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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