

RODA ALLOY 825



 **Rodacciai**
SINCE 1956 ALL OVER THE WORLD



DESCRIPTION AND APPLICATIONS

Roda Alloy 825 is used in corrosive environments below 540°C (1000°F) because it's resistant to reducing acids, H₃PO₄, H₂SO₄, and also to chloride-ion stress-corrosion cracking, thanks to Nickel together with Molybdenum and Copper. As filler metal is used for welding Ni-Fe-Cr-Mo-Cu alloy to itself using TIG and MIG processes; a typical use is for pipes and tubes in UNS N08825 (ASTM B423) used in offshore oil platforms.

Roda Alloy 825 can also be used to overlay cladding where similar chemical composition is required or to protect carbon and low alloys steel.

APPROXIMATE EQUIVALENT WITH OTHER STANDARDS

Rodacciai Denomination	Rodaalloy 825
EN ISO 18274:2010	Ni 8065 - NiFe30Cr21Mo3
AWS A5.14/A5.14M: 2018	ERNiFeCr-1 - N08065
DIN Werkstoff Nr.	(2.4858)

FILLER METAL PROPERTIES

Typical Chemical composition (nominal) in %

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Al	Ti	Fe
0,02	0,65	0,3	0,002	0,020	22,5	43,5	3,15	2,5	0,1	0,8	27

EXPECTED MINIMUM MECHANICAL PROPERTIES AS WELDED

Temperature		20°C
Yield strength, Rp 0,2	MPa min	240
Tensile strength, Rm	MPa min	560
Elongation, A5	% min	28

TYPICAL WELDING PARAMETERS

Process	Diameter		Volt	Ampere	Gas
	mm	inches			
MIG	1,0	0.035	26-29	150-190	75% Ar + 25% He
	1,2	0.045	28-32	180-220	75% Ar + 25% He
	1,6	1/16	29-33	200-250	75% Ar + 25% He
TIG	1,6	1/16	14-18	90-130	100% Ar
	2,4	3/32	15-20	120-175	100% Ar
	3,2	1/8	15-20	150-220	100%Ar

Typically no preheat is required, interpass temperature is kept to 150°C maximum and no PWHT is required.

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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