

# RAAJ INCONEL 625

## Nickel and Nickel-Alloy Bare Welding Rods for MIG/TIG Welding

**CLASSIFICATION :** AWS/SFA 5.14 ER NiCrMo-3 (UNS No. N06625)

**DESCRIPTION :** The nominal composition (wt %) of filler metal of this classification is 61 Ni, 22 Cr, 9 Mo, 3.5 Nb plus Ta. RAAJ ER NiCrMo-3 bare wire used for GMAW, GTAW and SAW welding process. It is used in the welding of ASTM b 443, B 444 and B 446 having UNS number N06625.

**APPLICATION :**

- 1) It is used for welding nickel-chromium-molybdenum alloy to itself, to steel, to other nickel-base alloys, for cladding steel with Ni-Cr molybdenum weld metal
- 2) It is also used for welding the clad side of joints in steel with Ni-Cr-Mo alloy.
- 3) This filler metal is recommended for application where the operating temperature ranges from cryogenic to 540°C.
- 4) It is used for welding Inconel 601 and Incoloy 800.
- 5) This alloys offer resistant to stress corrosion cracking, pitting and can be used to weld dissimilar metal combination.

**CHEMICAL COMPOSITION %**

C	Mn	Fe	P	S	Si	Cu	Ni	Al	Ti	Cr	Nb	Mo
0.10	0.50	5.0	0.02	0.015	0.50	0.50	58.0min	0.40	0.40	20-23	3.15-4.15	8.0-10

Single value maximum

**TYPICAL ALL WELD MECHANICAL PROPERTIES:**

~Tensile Strength (N/mm <sup>2</sup> )	~Elongation (%)
800	35

**DIEMENSION, TYPICAL CURRENT CONDITION & PACKING DATA (RAAJMIG INCONEL 625)**

Size (mm)	Size (inch)	~Current (DC+)	~Voltage (V)	Gas Flow Rate L/min.	Spool packing 12.5 kg.	Spool packing 15 kg	Drum packing 100/250kg
0.90	0.035	150-180	25-29	10-20	√	√	X
1.20	0.047	180-220	28-32	15-25	√	√	√
1.60	0.062	200-250	28-33	15-30	√	√	√

**DIEMENSION, TYPICAL CURRENT CONDITION & PACKING DATA (RAAJTIG INCONEL 625)**

Size (mm)	Size (inch)	Length (mm)	Length (inch)	~Current (DC+)	~Voltage (V)	Tube Packing 5 kg	Box Packing 20 kg
1.60	1/16"	1000	36"	80-120	12-18	√	√
2.00	5/64"	1000	36"	90-130	14-18	√	√
2.40/2.50	3/32"	1000	36"	110-170	14-20	√	√
3.15/3.20	1/8"	1000	36"	140-210	15-20	√	√
4.0	5/32"	1000	36"	150-220	15-22	√	√

Also available in ring for size 3/32", 1/8", 5/32" for SAW welding process.

Tailor made packing available on request.