

# ER NiCrCoMo-1 (Alloy 617)

Nickel Alloy TIG/GTAW

## Standards

EN/ISO-Standard - 18274

AWS-Standard - A5.14

EN/ISO-Classification - Ni 6617 - NiCr22Co12Mo9

AWS-Classification - ER NiCrCoMo-1

## Features and Applications

- Alloy 617 is a high temperature wire used for welding of nickel-chromium-cobalt-molybdenum alloys.
- Ideal for overlay cladding where similar alloy is required, such as gas turbines and ethylene equipment.
- Suitable for joining dissimilar alloys where high temperature strength and oxidation resistance are required up to about 1150°C.
- Typically used in the aerospace and power generation industries, including petrochemical plants for applications such as nitric acid catalyst grids etc.
- Test Certificates can be found online @wilkinsonstar247.com**



## Typical Base Materials

Inconel alloys 600 and 601, Incoloy alloys 800 HT and 802 and cast alloys such as HK40, HP and HP45 Modified. UNS Number N06617, 2.4663, 1.4952, 1.4958, 1.4959, NiCr21Co12Mo, X6CrNiNbN 25 20, X5NiCrAlTi 31 20, X8NiCrAlTi 32 21, Alloy 617, N08810, N08811\*

\* Illustrative, not exhaustive list

## Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

## Shielding Gases

EN ISO 14175 - TIG: I1 (Argon)

## Polarity

TIG DC (-)

## Mechanical Properties

Tensile Strength (N/mm <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	Elongation (%)	Impact Strength (J)
≥620	-	-	-

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

## Chemical Composition of Weld Metal %

C %	Mn %	Fe %	P %	S %	Si %	Cu %	Ni %	Co %	Al %	Ti %	Cr %	Mo %
0.05	max	max	max	max	max	max	44.00	10.00	0.80	max	20.00	8.00
0.10	1.00	1.00	0.020	0.015	0.50	0.50	min	14.00	1.50	0.60	24.00	10.00

## Packaging Data

Part No.	Diameter Ø (mm)	Package Length (mm)	Package Weight (Kg)	Package Type
<b>6011100611</b>	1.60	1000	5	Cardboard Tube
<b>6011100612</b>	2.40	1000	5	Cardboard Tube
<b>6011100613</b>	3.20	1000	5	Cardboard Tube

**Liability:** Whilst all reasonable efforts have been made to ensure the accuracy of the information contained, this information is subject to change without notice and can be only considered as suitable for general guidance.



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