

Inconel 617 is a solid-solution, strengthened, nickel-chromium-cobalt molybdenum alloy with an exceptional combination of high-temperature strength and oxidation resistance. The alloy also has excellent resistance to a wide range of corrosive environments, and it is readily formed and welded by conventional techniques.

The alloy is used for catalyst-grid supports in the production of nitric acid, for heat-treating baskets, and for reduction boats in the refining of molybdenum. INCONEL alloy 617 also offers attractive properties for components of power-generating plants, both fossil fueled and nuclear.

Inconel 617 Specification:

Grade	UNS	W.Nr
Alloy 617	N06617	2.4663a

Inconel 617 Chemical Composition

Grade	%	Ni	Cr	Co	Mo	Al	C	Fe	Mn	Si	S	Ti	Cu	B
Alloy 617	Min	44.5	20	10	8	0.8	0.05							
	Max		24	15	10	1.5	0.15	3	1	1	0.015	0.6	0.5	0.006

Inconel 617 Mechanical properties: (Minimum value at 20°C)

Tensile Strength σ_b /MPa	Yield Strength $\sigma_{p0.2}$ /MPa	Elongation σ_5 /%
≥ 665	≥ 240	≥ 35

Inconel 617 Standards

Bar	Forging	Sheet/Strip	Wire	Pipe
ASTM B166	ASTM B564	ASTM B168	ASTM B166	ASTM B564

Inconel 617 Size Range

- Wire: Dia 0.08-12mm
- Bar: Dia 1.0-300mm
- Strip(Coil): 0.2-20mm TCK x 10-300mm W
- Sheet: min.0.7mm TCK x 1200mm W max.
- Tube & Forging & Machine Parts: customized
- Welding wire: 0.8mm, 1.0mm, 1.2mm, 2.0mm, 2.4mm, 3.2mm, 3.8mm, 4.0mm etc
- Welding Strip: 0.4-0.7mm TCK x 25-60mm W