

NIMONIC 80A is a wrought, age-hardenable nickel-chromium alloy, strengthened by additions of titanium, aluminum and carbon, developed for service at temperatures up to 815°C (1500°F). It is produced by high-frequency melting and casting in air for forms to be extruded.

NIMONIC alloy 80A is currently used for gas turbine components (blades, rings and discs), bolts, nuclear boiler tube supports, die casting inserts and cores, and for automobile exhaust valves.

### Nimonic 80A Specifications

Grade	UNS	W.Nr
Nimonic 80A	N07080	2.4952 / 2.4631

### Nimonic 80A Chemical Composition

Grade	%	C	Si	Mn	S	Co	Cr	Cu	Fe	B	Ti	Al	Ni
Nimonic 80A	Min						18.00				1.80	1.00	Bal
	Max	0.10	1.00	1.00	0.02	2.00	21.00	0.20	3.00	0.008	2.70	1.80	

### Nimonic 80A Mechanical properties(Minimum value at 20°C)

Tensile Strength $\sigma_b$ /MPa	Yield Strength $\sigma_{p0.2}$ /MPa	Elongation $\sigma_5$ /%
$\geq 930$	$\geq 620$	$\geq 20$

### Nimonic 80A 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