

Alloy 660 is a precipitation hardening alloy, which maintains superior strength at high temperatures up to 700°C, surpassing austenitic stainless steels. With a higher nickel content, Alloy 660 also includes such elements as titanium and aluminum for hardening. Age hardening is used to precipitate γ' phase [Ni₃ (Al, Ti)] making this an extraordinarily strong metal at high temperatures. Alloy 660 is an excellent choice when high-temperature strength is required such as jet engines, gas turbines and turbo charger components.

Alloy 660 Specifications

Grade	UNS
Alloy 660	S66286

Alloy 660 Chemical Composition

Grade	%	Ni	Cr	Mo	B	P	Al	Ti	C	Mn	Si	V	S	Fe
Alloy 660	Min	24	13.5	1.0	0.001			1.95				0.10		Bal.
	Max	27	16	1.5	0.01	0.04	0.35	2.35	0.08	2.0	1.0	0.50	0.03	

Alloy 660 Mechanical properties: (Minimum value at 20°C)

Class	Tensile Strength σ_b /MPa	Yield Strength $\sigma_{p0.2}$ /MPa	Elongation σ_5 /%
Class A,B,C	≥ 895	≥ 585	≥ 15
Class D	≥ 895	≥ 725	≥ 15

Alloy 660 Standards

Bar
ASTM A453

Alloy 660 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