

Inconel 690 has outstanding resistance to oxidizing chemicals and to high-temperature oxidizing gases. And it has resistance to stress corrosion cracking in chloride-containing environments as well as to sodium hydroxide solutions. Alloy 690 is used for applications such as coal-gasification units, burners and ducts for processing sulfuric acid, furnaces for petrochemical processing, incinerators and so on.

Inconel 690 Specification

Grade	UNS	W.Nr
Alloy 690	N06690	2.4642

Inconel 690 Chemical composition

Grade	%	Ni	Cr	Fe	C	Mn	Si	Cu	S
Alloy 690	Min	58.0	27.0	7.0	0.05				
	Max		31.0	11.0		0.5	0.5	0.5	0.015

Inconel 690 Mechanical properties: (Minimum value at 20°C)

Tensile Strength σ_b /MPa	Yield Strength $\sigma_{p0.2}$ /MPa	Elongation σ_5 /%
≥ 580	≥ 260	≥ 30

Inconel 690 Standard

Bar/Rod	Forging	Sheet/Strip	Pipe/Tube
ASTM B166	ASTM B564	ASTM B168	ASTM B167 ASTM B163 ASTM B516

Inconel 690 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