BH DÖVME METAL SANAYİ ve TİCARET LTD. ŞTİ.
Hatip Mah. 1708. Sk. D Blok No. :6
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Grade	Code	UNS	Nickel Alloys
Inconel 600	Alloy 600 (2.4816)	N06600	

Nickel Alloy Properties

Alloy 600 (UNS N06600) is a nickel-chromium-iron, solid solution strengthened alloy used for applications that require corrosion and elevated temperature resistance. Service temperatures for alloy 600 can be from cryogenic to 1094°C. Inconel 600 also has good workability, weldability and high strength. With 72% minimum nickel, alloy 600 is resistant to many organic and inorganic compounds and also offers good corrosion resistance in reducing conditions. The high nickel content lowers the chances for stress corrosion cracking for UNS N06600 in the annealed condition. The high nickel content also improves resistance to carburizing, nitriding and thermal fatigue, while maintaining an austenitic structure so Alloy 600 retains ductility. Increased chromium in the alloy offers high temperature resistance to sulfur compounds as well as resistance to oxidizing compounds at elevated temperatures or in corrosive media.

Chemical Composition (Alloy 600)

Ni %	Cr %	C %	Mo %	Mn %	Si %	Al %	Ti %	Cu %	Fe %
Balance	14,00 – 17,00	0,15 max.	-	1,00 max.	0,50 max.	0,30 max.	0,30 max.	0,50 max.	6,00 – 10,00

Mechanical Properties (Annealed Hot-Finished)

Condition	Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness[HRC]	Density [g/cm^3]
Bar & Rod	205-345	550-690	55-35	65-85	8,47

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Suitable For

Typical applications for Alloy 600 are: Transport rollers, steel pipes, ventilators and other installations in industrial furnaces, Industrial furnace muffles, in particular for heat treatment in N_2 atmospheres, Thermal element protective conduits in nitriding and carburizing atmospheres, Pipes for dichloroethylene pyrolysis, Components in the production of uranium tetrafluoride from hydrofluoric acid, production of caustic alkalis, especially with the presence of sulfur bonds, Reaction vessels and heat exchanger pipes in the production of vinyl chloride, plant parts for the production of chlorinated and fluorinated hydrocarbons, parts such as cladding tubes for control rods, reactor tanks and seals, steam dryers and separators in boiling water reactors, Pipes in $TiCl_4$ evaporators in the production of TiO_2, Vessels and piping used to contain caustic solutions , For the automotive industry the alloy is used for high temperature sensors, rupture discs in airbag systems, electrodes for spark plugs and gaskets.

Remarks

Specification

Inconel 600, Alloy 600, 2.48162, N06600

Norm

ASTM B168, B166, B564, AMS 5540, ISO 15156, NACE MR0175