



* Heat exchanger

Technical datasheet

Inconel 601

Major specifications

AMS 5870	AMS 5715	ASTM B166	ASTM B167	ASTM B168	DIN2.4851
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Available product forms

Plate and strips in AMS 5870+ASTM B168.
Bars in AMS 5715+ASTM B166.
Seamless pipe in ASTM B167.
The current stock range can be found on www.lorksteels.com/products/inconel.html.
Further dimensions available upon request.
Use our Service Centre to have the available sizes cut to your desired dimensions.

Key features

Inconel alloy 601 is a general purpose Nickel-Chromium-Iron alloy for applications requiring good resistance to heat and corrosion. The most important property is its outstanding resistance to high temperature oxidation even under cyclical heating and cooling. Inconel alloy 601 also has good resistance to aqueous corrosion, has high mechanical strength, and is readily formed, machined, and welded. Age-hardening treatments are not required, as inconel alloy 601 is hardened and strengthened through cold work only.

Chemical properties

Composition - limits in %

Mn	C	Al	Fe	Cr	Ni
max1.00	max0.10	1.00-1.70	rest	21.00-25.00	58.00-63.00

Mechanical properties (room temperature)

Yield strength	min. 241MPa
Tensile strength	min. 586 MPa
Elongation	min. 30%

Applications in the chemical industry

Ethylene cracking furnace tube support Ammonia reforming furnace isolation vessel Heat exchangers, condensers Waste incinerator combustion chamber	Advantages Resists carburization, oxidation, and thermal shock. Resist corrosion by high-temperature ammonia gas and nitric acid media. Virtually immune to chloride stress corrosion cracking (SCC) Withstands high-temperature flue gas containing HCl.
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