

## Inconel 601

Inconel 601 is a solid solution strengthened nickel-chromium-iron alloy with additions of aluminium and titanium and is characterized by:

- outstanding resistance to oxidation at high temperatures
- good resistance to carburizing conditions
- good mechanical properties at both room and elevated temperatures
- good resistance to stress-corrosion cracking

Inconel 601 is specifically recommended for service above 550°C because of its higher creep-rupture properties, obtained via controlled carbon content and coarse grain size.

### Chemical Composition, %

element	C	Cr	Ni	Fe	Al	Si	Mn	S	Cu
min.		21.0	58.0	bal.	1.0				
max.	0.10	25.0	63.0		1.7	0.5	1.0	0.015	1.0

*Chemical Composition according to ASTM. Some compositional limits of other specifications may vary slightly.*

### Designation and standards

National Standards	Material designation	Chemical composition	Forgings	Rod and bar	Plate and sheet	Strip	Wire	Seamless tube
ASTM ASME SAE	UNS N06601		AMS5715	B166 SB166 AMS5715	B168 SB168 AMS5870	B168 SB168 AMS5870	B166 SB166	B167 SB167 B829 SB829
DIN	2.4851 NiCr23Fe	DIN 17742 DIN 10095		DIN 17752	DIN 17750	DIN 17750	DIN 17753	DIN 17751
GB/T	NS3103, NS313	GB/T 15007		GB/T 15008	GB/T 15009 GB/T 15010			

**Density** 8.11g/cm<sup>3</sup>

### Corrosion resistance

- excellent resistance above 550°C against hot gases and combustion products
- excellent resistance against molten salt and molten metal corrosion
- good resistance to carburization and carbonitriding conditions

### Applications

Typical applications are:

- trays, baskets and fixtures for heat treatment plant
- refractory anchors, strand-annealing and radiant heater tubes, high-velocity gas burners, wire mesh belts in industrial furnaces
- insulating cans in ammonia reformers and catalyst support grids in nitric acid production
- components in exhaust gas systems
- combustion chambers in solid waste incinerators
- tube supports and ash-handling components
- components of waste-gas detoxification systems
- oxygen preheaters

You could send email to [sales@huishih.com](mailto:sales@huishih.com) for more information.

Copyright HUISHIH Alloy Corporation.

The data contained in this publication is for informational purposes only and may be revised at any time without prior notice.