Alloy L605

Smiths Advanced Metals

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Cobalt Nickel Alloy Sheet

Ideal for hot corrosive environments.

Alloy L605 is a cobalt-nickel-chromium-tungsten alloy with exceptional strength and good oxidation resistance in environments up to 1093°C (2000°F).

The material is ideal for hot corrosive environments such as jet engines, combustion chambers and gas turbines. The alloy offers good sulfidation and carburising resistance and good wear and galling resistance.

As a non-magnetic product, Alloy L605 provides good strength and good corrosion resistance in a broad range of environments, including hydrochloric, wet chlorine, nitric acids, and marine. The addition of chromium in the alloying process helps to achieve these performance characteristics.

The alloy offers good machinability, weldability and formability by most conventional methods.

We stock Alloy L605 sheets of various sizes, which we process in-house using our guillotining services.

Benefits

- Excellent resistance to sulfidation
- Good oxidation resistance
- Excellent high-temperature strength

*Chemical Composition (weight %)										
	Со	Cr	W	Ni	Fe	Mn	Si	С	Р	S
min.	Rem	19.00	14.00	9.00		1.00		0.05		
max.		21.00	16.00	11.00	3.00	2.00	0.40	0.15	0.04	0.03

* As per AMS 5537

Aerospace Applications

Grades / Specifications

AMS5537 UNS R30605

2.4964

Alloy L605 offers performance characteristics that are ideal for many aerospace applications.

The material offers suitability for engineering aspects of an aircraft exposed to hot gases such as afterburners, exhausts, combustion chambers and turbines. Alloy L605 also benefits from good ductility, although some ductility is lost if the alloy finds exposure to intermediate temperatures for long periods.

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