

Haynes 25

Haynes 25 is a cobalt-nickel- chromium-tungsten alloy that combines excellent high-temperature strength with good resistance to oxidizing environments up to 1800°F (980°C) for prolonged exposures, and excellent resistance to sulfidation.

Chemical Composition, %

element	Co	Cr	W	Ni	Fe	C	Mn	Si	P	S
min.	bal.	19.0	14.0	9.0		0.05	1.0			
max.		21.0	16.0	11.0	3.0	0.15	2.0	0.40	0.040	0.030

chemical Composition according to SAE AMS. 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	Wire
SAE	UNS R30605		AMS 5759	AMS 5759	AMS 5537	AMS 5796
GB/T	GH5605, GH605	GB/T 14992				

Density 9.13g/cm³

Corrosion resistance

- excellent high-temperature strength
- good resistance to oxidizing environments up to 980°C
- excellent resistance to sulfidation
- excellent resistance to metal galling

Applications

- components in the aerospace industry
- components commercial gas turbine engines