

## Haynes NS-163® Cobalt Alloy

Category : Metal , Nonferrous Metal , Cobalt Alloy

### Material Notes:

Alloy that brings high-temperature alloy performance at temperatures up to 2200°F (1204°C). HAYNES NS-163 alloy is a wrought cobalt-based alloy (Co-28Cr-21Fe-9Ni-1.25Ti-1Nb) for use in sheet and wire forms. Not only is this alloy fully fabricable and weldable, it achieves a level of stress-rupture strength that approaches the capabilities of the oxide-dispersion strengthened (ODS) alloys. This capability is developed through a unique new heat treatment under nitrogen which imparts a through-thickness dispersion-strengthening phase in the final part at thicknesses up to 0.100" (2.5 mm). This fabricable alloy achieves extremely high strengths versus other wrought alloy products. Data provided by the manufacturer, Haynes International, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Haynes-NS-163-Cobalt-Alloy.php](http://www.lookpolymers.com/polymer_Haynes-NS-163-Cobalt-Alloy.php)

Mechanical Properties	Metric	English	Comments
Rupture Strength	45.0 MPa	6530 psi	2 mm sheet
	@Temperature 982 Â°C, Time 3.60e+6 sec	@Temperature 1800 Â°F, Time 1000 hour	
	67.0 MPa	9720 psi	2 mm sheet
	@Temperature 982 Â°C, Time 360000 sec	@Temperature 1800 Â°F, Time 100 hour	

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	1200 Â°C	2200 Â°F	

Component Elements Properties	Metric	English	Comments
Chromium, Cr	28 %	28 %	
Cobalt, Co	39.75 %	39.75 %	As Balance
Iron, Fe	21 %	21 %	
Nickel, Ni	9.0 %	9.0 %	
Niobium, Nb (Columbium, Cb)	1.0 %	1.0 %	
Titanium, Ti	1.25 %	1.25 %	

## Contact Songhan Plastic Technology Co.,Ltd.

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