

NIMONIC 75 (UNS N06075)
Alloy 75

Nickel-Chromium Alloy

Nimonic Data Sheet

Introduction

Nimonic 75 / Alloy 75 belongs to Nickel-Chromium Alloy Family with high performance characteristics. Nimonic 75 has good mechanical properties, low creep & resistance to oxidation at high temperatures. Titanium is the key factors for enhancing the overall strength of the alloy.

Chemical Composition (Typical)

Element	Limits	
	min	max
Carbon	0.080	0.150
Chromium	18.000	21.000
Silicon	--	1.000
Copper	--	0.500
Iron	--	5.000
Manganese	--	1.000
Titanium	0.200	0.600
Nickel	remainder	

Mechanical Properties (Typical)

Parameter	Value
Yield 0.2 % (Mpa/Nmm ²), Min	275
Tensile (Mpa/Nmm ²), Min	750
Elongation (% in 50MM), Min	42

Physical Properties (Typical)

Parameter	Value
Density g/cm ³	8.37
Melting Range °C	1340 - 1380
Specific Heat J/Kg °C	461 at 20 °C

Heat Treatment

These high strength alloys can be heat treated & cooled in air to produce required results. Nimonic 75 can also be strain hardened for high tensile requirement. Annealing should be carried out at 1050°C (1920°F) followed by air cooling.

Working Instructions

Hot Working - Nimonic 75 can be hot worked between temperature range of 1220-950°C.

Forging - Nimonic alloys can be forged within their respective allowable hot working temperature followed by heat treatment to produce forgings, forged fittings, flanges, rings, disc, blocks, etc.

Cold working - Nimonic alloys can be cold worked condition to be properly annealed. Nimonic 75 allows greater reduction ratios without rupture if subject to rapid strain hardening process.

Welding - Material should be in the annealed condition before welding although a small amount of cold work is tolerable. Nimonic alloys can be welded by the MMA, TIG, MIG welding methods.

Manufactured Product Forms

Round Bars	Fittings
Plate, Sheet, Strip	Fasteners
Pipes & Tubes	Filler Metal
Forgings	Component Parts
Wire Rods	Flanges

Relevant Specifications

BS HR 5	DIN 17752
BS HR 504	DIN 17750
BS HR 203	DIN 17742
BS HR 403	DIN 17751

Certifications & other Compliance

Product manufactured under Nimonic 75 are certified in conformance to En 10204 Type 3.1 Certificate as well as 3.2 with third party inspection. Products with Nace Mr0175 compliance are also offered.

Applications & Industries

Aerospace Industry
High Temperature Springs
Thermal Processing Equipments
Industrial furnace structural parts
Heat treatment equipments

Related Keywords

Nimonic 75 Plates, Nimonic 75 Bars, Nimonic 75 Wire, Nimonic 75 Filler Wire, Nimonic 75 Sheet, Nimonic 75 Strip, Nimonic 75 Component Parts, Nimonic 75 Fittings, Nimonic 80a Forgings, Nimonic 75 Pipes, Nimonic 80a Tubes, Nimonic 75 Fasteners, Nimonic 75 Flanges.

Excellence Inherent

With 3 decade long experience inherited, we aim at providing better solutions for Industrial Piping Sector. Skilled Team, passion drives our will to be better with resolute for continuous customer & vendor concurrence. We also perceive our duty towards planet for its unconditional support & try to minimise any harm caused due to our activity. For Instance, We Stay Paperless

The Information contained in this data sheet is for reference purpose only and actual data may vary from product to product. Complete rely on these values for product design recommended. User will be solely responsible for any failure in intended construction. **FERROBEND™** is trademark Property of **FERROBEND**.

FERROBEND
EXCELLENCE INHERENT

FERROBEND | Industrial Piping Products

#1016 Prasad Chambers Opera House Mumbai 400004 INDIA

Tel : 91 - 22 - 6666 5432 Fax : 91 - 22 - 6636 3375

www.ferrobend.com