

From advanced technology to daily necessities

The heat resisting material of Nippon Koshuha Steel is in the base of the society.

The heat resisting material is a base of the high technology that supports the next generation like the aviation space industry and the atomic industry, etc. Nippon Koshuha Steel is delivering the high quality heat-resistant materials that stand high temperature and high pressure, and that have corrosion resistant, toughness, and workability. Heat resisting materials processed to forgings, bars, and wire rod can be widely used for parts such as automobiles, ships and vessels, chemical equipments, and precision machineries.



Turbine shaft



Turbine disk

Heat resisting material				
Class	Grade	Equivalent alloy	Principal Chemical Composition	Example of usage
Iron-base Alloy	KTA286	A 286	26Ni-15Cr-2Ti-1.3Mo-Fe	Gas turbine (desk and rotor), Corrosion and heat resisting bolts
	KTA800	INCOLOY 800	32Ni-21Cr-Fe	Heat exchanger, Parts for various heating unit
	KTA801	INCOLOY 801	32Ni-21Cr-1.1Ti-0.5Cu-Fe	Heat exchanger, Steam generator, Jet engine parts.
	KTA802	INCOLOY 802	0.3C-32Ni-21Cr-0.75Cu-Fe	Heat-treatment furnace, Die for hot working.
	KTA804	INCOLOY 804	30Ni-41Cr-0.6Ti-0.3Al-Fe	Parts for heating furnace, Instrument for carburization
	KTA825	INCOLOY 825	42Ni-22Cr-3Mo-0.9Ti-0.1Al-Fe	Chemical equipment, Fastener, Instruments foe pickling °
	KTA901	INCOLOY 901	43Ni-14Cr-6Mo-2.5Ti-0.3Al-Fe	Gas turbine parts
	KTA155	LCN 155	20Ni-21Cr-3Mo-20Co-1Nb-3W-Fe	Rocket engine parts, Aircraft components.
Nickel-base alloy	KTA600	INCONEL 600	76Ni-16Cr-8Fe	Heat exchanger, Chemical equipment, Bolts.
	KTA601	INCONEL 601	61Ni-23Cr-1.4Al-14Fe	Parts for heating furnace
	KTA606	INCONEL 606	70Ni-20Cr-3.2Mn-2.5Nb	Welding rod, Parts for heating furnace

	KTA625	INCONEL 625	61Ni-22Cr-9Mo-3.5Nb-2Fe	Chemical equipment, Parts for resisting seawater
	KTA718	INCONEL 718	52Ni-19Cr-5Nb-3Mo-1Ti-19Fe	Jet engine parts, Nuclear power plant
	KTAX-750	INCONELX 750	73Ni-16Cr-2.5Ti-1Nb-7Fe	Heat resisting spring, Gas turbine parts.
	KTAN-75	NIMONIC 75	75Ni-20Cr-4.5Fe	Jet engine parts, Gas turbine parts.
	KTAN-80A	NIMONIC 80A	70Ni-20Cr-2.3Ti-1.2Al-4.5Fe	Exhaust valve, Gas turbine parts.
	KTAN-90	NIMONIC 90	58Ni-20Cr-16Co-2.3Ti-1.4Al	Jet engine parts, Exhaust valves.
	KTA-HC	HASTELLOYC	55Ni-15Cr-2.5Co-16Mo-4W-5Fe	Chemical equipment, Jet engine parts
	KTA-HX	HASTELLOYX	46Ni-22Cr-1.5Co-9Mo-18Fe	Parts for heating furnace, Jet engine parts
Cobalt-base alloy	KTA816	S 816	43Co-20Ni-20Cr-4Mo-4W-4Nb	Gas turbine parts, Bolts, Shafts, Parts for heating furnaces
	KTA-KU50	UMCO 50	50Co-30Cr-20Fe	Parts for heating furnaces, Device for heat-treatment.
Class	Grade	Equivalent alloy	Principal Chemical Composition	Example of usage

The trademark quoted on this page and the proprietary rights are as shown in the following.

Trade mark	Name of the company	Trade mark	Name of the company
DISCALOY	Westinghouse Electric	KOVAR	Carpenter technology
ELINVAR	Imphy Alloys	MONEL	INCO Alloys
HASTELLOY	Haynes International	NIMONIC	INCO Alloys
INCONEL	INCO Alloys	NISPANC	INCO Alloys
INCOLOY	INCO Alloys	WASPALLOY	United Technologies.
INVAR	Imphy Alloys		