

# Company Profile

## NORITAKE CO., LIMITED *Noritake*

<b>Address</b>	3-1-36, Noritake-Shinmachi, Nishi-ku, Nagoya 451-8501, Japan
<b>Tel</b>	+81-52-561-9868
<b>Email</b>	newcera@n.noritake.co.jp
<b>Website</b>	https://www.noritake.co.jp/
<b>Contact Person</b>	Sumio Nishiwaki Shuji Kawabata
<b>Capability Category</b>	Manufacturing (From Prototype to Mass Production) Development, design, and commercialization of Ceramics Cores for precision investment casting and industrial abrasive grind wheel. Development and commercialization by additive manufacturing.
<b>Representative</b>	Hiroshi Kato
<b>Sales Amount</b>	1,198 Million USD /2018 (@ 105 yen/USD)
<b>Capital</b>	149 Million USD (@ 105 yen/USD)
<b>Employees</b>	5091
<b>Established</b>	January 1st, 1904
<b>Certification</b>	ISO9001, JQA-2835 and ISO14001
<b>Major Customers</b>	MHI, KHI, IHI, HOWMET AEROSPACE

### Business Overview

NORITAKE's Ceramic Cores are being used for manufacturing high-precision rotor and stator blades for gas turbines and jet engines, these ceramic cores contribute greatly to high quality of precision investment casting materials. In addition, we can make the Ceramic Cores by additive manufacturing (3D printing) which contributes greatly to the shortening the development and commercialization speeds to meet customer or market demands. In addition, we can develop, design and commercialize the various abrasive tools for difficult-to-machine materials including heat-resistant steel.



### Products · Materials · Part Sizes · Facilities & Equipment

The product line of NORITAKE's Ceramic Cores are shown at below or above table. We have various molding methods and materials, and we can support any sizes and shapes of the products.

Selection is made from among the material model on the basis of molten metal temperature, casting materials, and shape (size) of cast product at customer's request.

Minimum thickness is 0.30mm, Maximum thickness is 150mm, Maximum length is 1,000mm

Shortening the development or commercialization time, we can also provide the prototype ceramic cores made by Additive Manufacturing.

In addition, we can offer most suitable abrasive tool and the specifications to any machining materials or abrasive method according to customer or market demands.

Material model 品番	MONARC				
	N200	N400	N450	N500	N700
Major composition 組成分	SiO <sub>2</sub> -ZrSiO <sub>4</sub>	SiO <sub>2</sub> -ZrSiO <sub>4</sub>	SiO <sub>2</sub> -ZrSiO <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub> -ZrSiO <sub>4</sub>
Molding method 成形方法	Porcelain method 焼成成形	Medium pressure injection molding 中圧射出成形		High pressure injection molding 高圧射出成形	
Trace impurities 微量元素	Fe <300 ppm	Pb <25 ppm	Bi <1 ppm	Ag <1 ppm	
Characteristics values 特性値	Porosity 気孔率 30%	Thermal expansion rate at 1000°C 熱膨張率 0.25%			
Bending strength 抗折強度	at Room Temperature 7Mpa	at 1,000°C 24Mpa			
Size 寸法	Maximum length 最大長 ~L1000mm	Minimum thickness 最小肉厚 0.30mm			
Cast type 射出用途	cc/DS/SC	cc	cc/DS/SC	cc	cc/DS/SC

### Our Strength

NORITAKE is one of the leading company for "Ceramics" and has 4 different business fields with the application and development of a variety of ceramics manufacturing technologies which come from tableware production we originally started.

Utilizing "NORITAKE core technology" which means that controlling the size and volume of pores in ceramic and our special materials design and firing technology, our special industrial grinding wheels with optimized abrasive grain arrangement and our special ceramics cores support various industries.

### Needs we can correspond / Business partners we want

We would like to be one of the business partners with any oversea companies for the precision investment casting on Aero-engines, IGT and something.

### Office & Plants

- Miyoshi Factory, Aichi Japan (For Ceramic Cores)
- Matsusaka Factory, Mie Japan (For Ceramic Cores)
- Miyoshi Factory, Aichi Japan (For Industrial abrasive grind wheel)
- Kurumei Factory, Fukuoka, Japan (For Industrial abrasive grind wheel)