



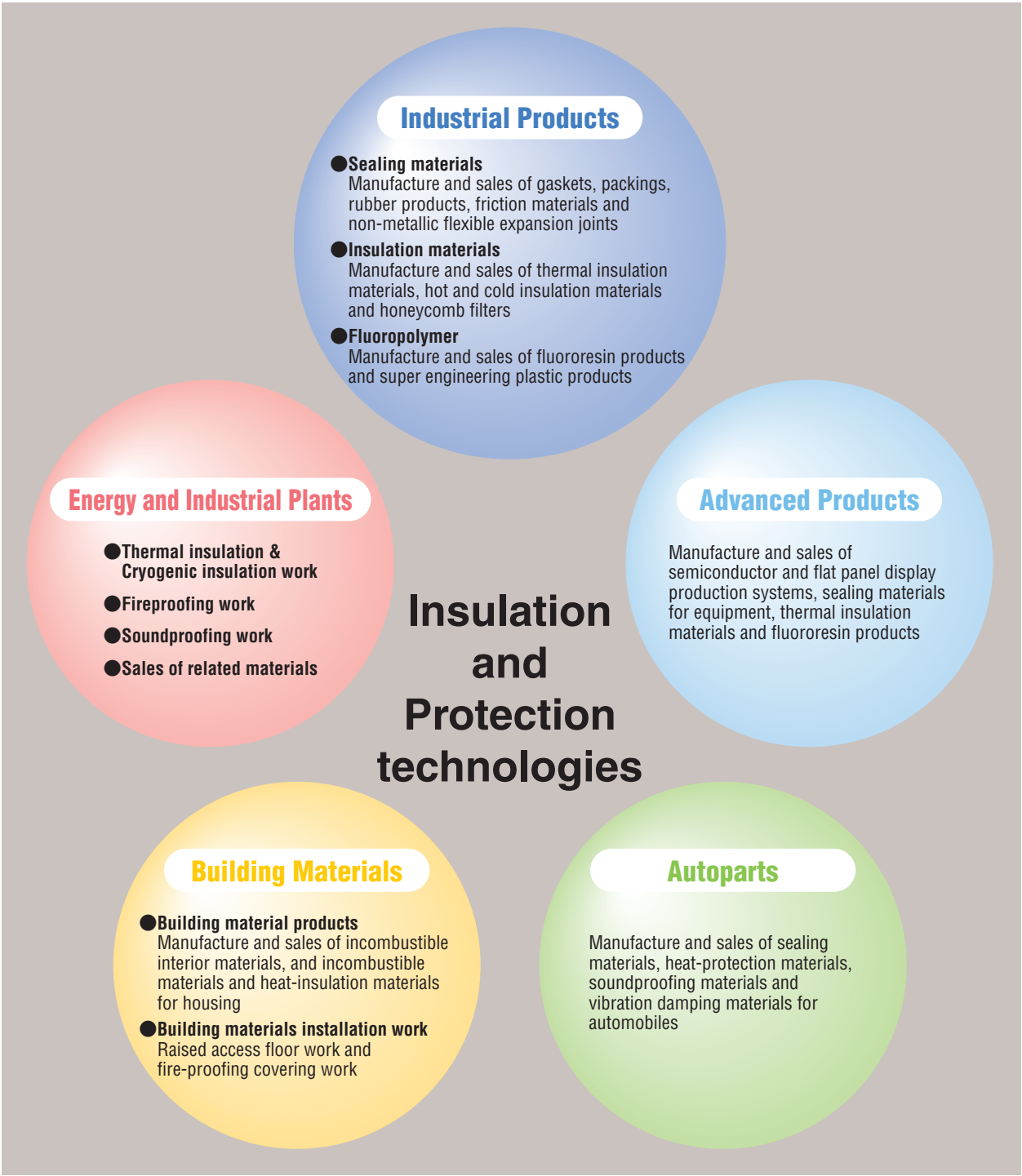
# **TOMBO™ BRAND**

## **Product Guide**

# NICHIAS contributes to the Earth's bright future through our Insulation and Protection technologies

NICHIAS commenced operations in 1896 as a pioneer in the areas of thermal insulation packing and gasket materials. During the past century we have engaged in a broad spectrum of activities encompassing sectors such as energy, petroleum and petrochemical plants, electronics, information and communications, automobiles, construction, housing, agriculture as well as urban development, environmental protection, and aerospace, and our technological capabilities have earned a very high evaluation and the confidence of users in all these sectors.

## Business contents

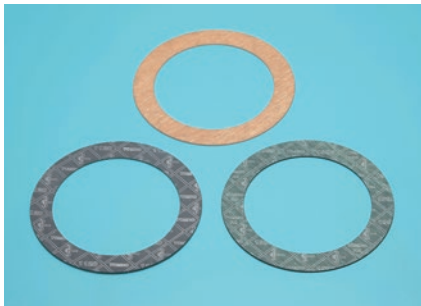


\*TOMBO is a trademark or registered trademark of NICHIAS Corporation.  
\*Name of products with "TM" are trademarks of NICHIAS Corporation.

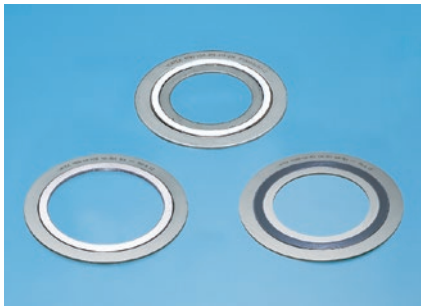
# SEALING MATERIALS

Eliminating leakage from vacuum to high pressure,  
and from cryogenic to high temperature applications

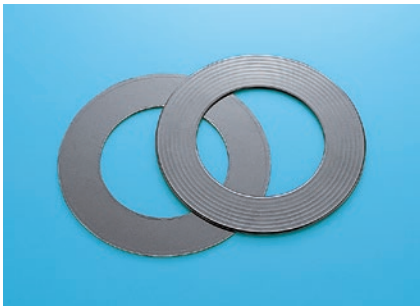
## GASKETS



● **Joining Sheet**  
Gasketing materials for piping and vessels



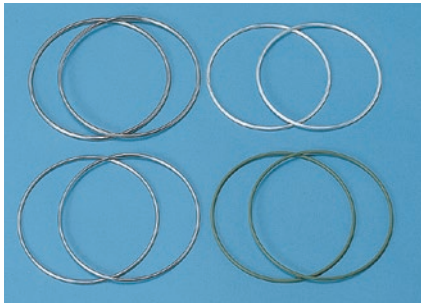
● **Spiral Wound Gasket**  
Semi-metallic gasket suitable for high pressure seals from cryogenic to elevated temperatures



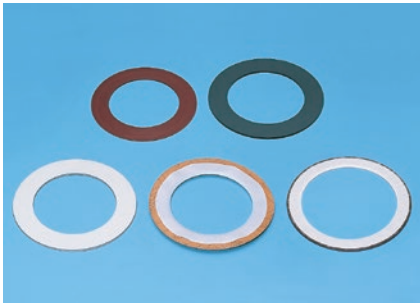
● **GRASEAL™ Gasket**  
Expanded Graphite gasket suitable for chemical treatment and heat treatment



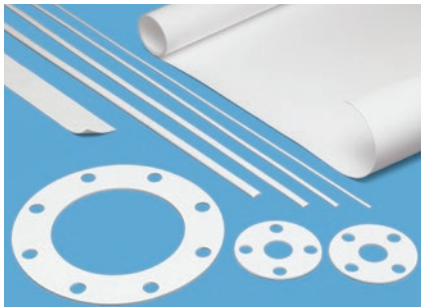
● **Metal Jacketed Gasket & Ring Joint Gasket**  
Metal Gasket suitable for high temperature duties



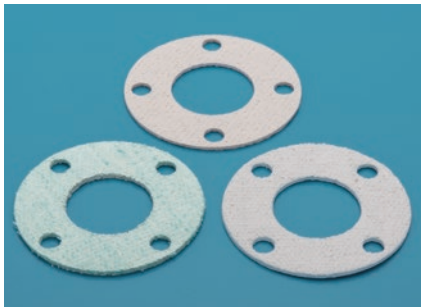
● **Metal O seal**  
Stainless-Inconel tube formed into an O ring shape



● **NAFLON™ Gasket**  
Fluoropolymer (PTFE, PTFE Envelope, PFA) gasket



● **NICHIAS SOFT SEAL™**  
Soft type gasket made of expanded PTFE



● **Manhole Gasket**  
Manhole & Handhole Gasket for exhaust gas, hot air, etc



● **Kammprofile Gasket**  
Specially grooved semi-metallic gasket with soft covering layers

## RUBBER MOLDED PRODUCTS



● **Elastomer O-ring**  
Elastomer O-ring, Semiconductor processing, oil-drilling and food pharmaceutical applications



● **NAFLON™ covered rubber gasket**  
PTFE covered elastomer gasket for piping and sanitary applications

## PACKINGS



● **Packing (Braided & Molded)**  
Suitable for valves, pumps, and other rotating equipment



# FLUOROPOLYMER PRODUCTS

Wide range of fluoropolymer products under  
the brand name of NAFLON™

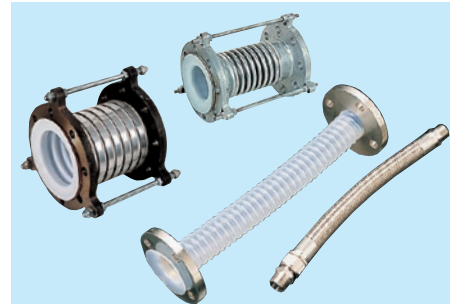
## CORROSION RESISTANCE LINING



● **Piping Materials**  
PFA Lined Pipings & Fittings



● **Valves**  
Fluoropolymer Lined Valves



● **Hoses & Bellows**  
PFA & PTFE Lined Hoses & Bellows



● **Vessels**  
PFA & PTFE Lined vessels



● **Vessel accessories**  
Tank accessories made of various fluororesin products

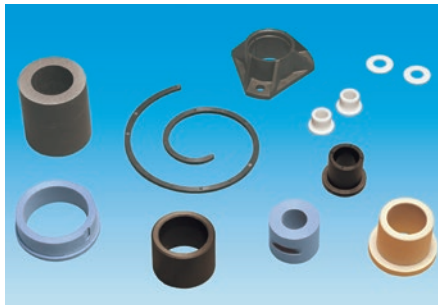


● **Roto Molded Linings**  
Fluoropolymer Roto Lined Pipings, Fittings & Vessels

## ELECTRICAL INSULATION PRODUCTS



● **Insulation Gasket Kit**  
Bolt and Gasket set for electrical insulation



● **EXCELIDE™**  
Self lubricating bearing made from filled PTFE & PPS



● **NAFLON™ U Bolt**  
Piping support materials that allow the smooth thermal expansion and contraction of piping

## SEMICONDUCTOR & LCD RELATED PRODUCTS

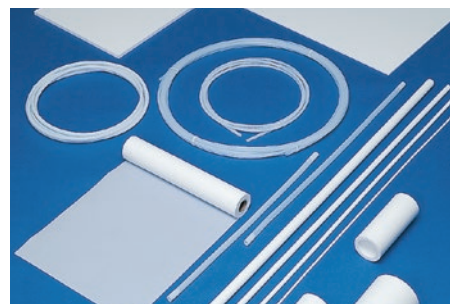


● **NAFLON™ Part**  
Miscellaneous Parts for semiconductor applications



● **NAFLON™ PFA-NE Tubing**  
Super PFA Tubing having electric conducting striped layers for Non-Explosion applications

## BASIC MATERIALS



● **NAFLON™ Materials**  
Wide variety of Fluoropolymer Sheets, Tapes, Rods, Pipes, and Tubing

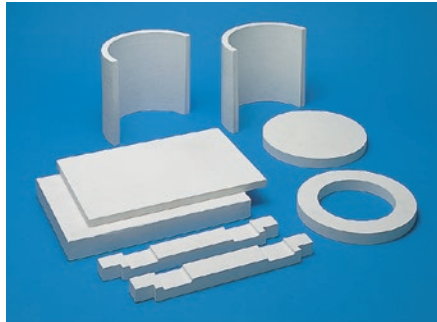
# THERMAL INSULATION MATERIALS

Minimizing heat loss from cryogenic to ultra high temperature applications by utilizing the features of raw materials

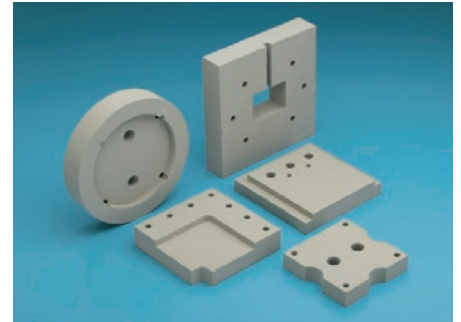
## HOT INSULATION MATERIALS



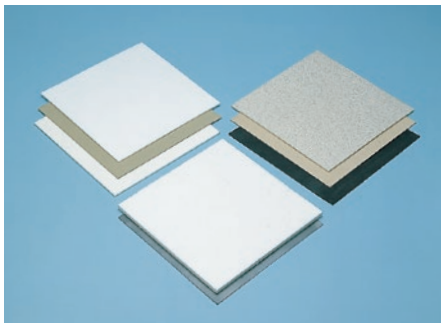
● **FINEFLEX BIO™**  
Light weight and flexible alkaline earth silicate wool products



● **RF BOARD™**  
Alumina fiber-based board for high temperature use



● **ROSLIM™ Board H and ROSLIM™ Board GH**  
Low thermal conductivity heat-insulation materials



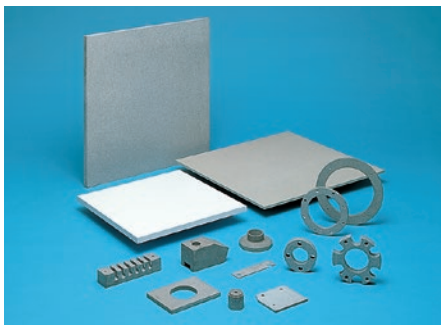
● **Paper, Sheet**  
Paper and sheet made of alkaline earth silicate wool, rockwool, vermiculite, fluoroelastomer



● **ENETHERMO™**  
Reusable flexible thermal insulation product



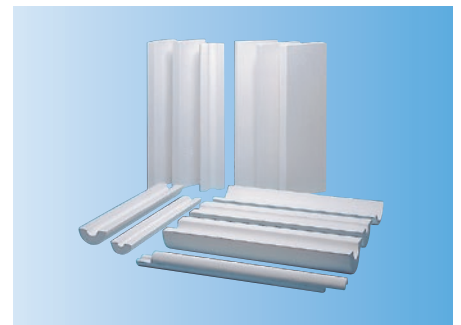
● **Textile**  
Textiles made of glass fibers, silicate fibers, alkaline earth silicate wool and alumina fibers



● **HEMISUL™**  
Thermal Insulation board for hot presses, induction furnaces and switch boxes



● **MG products**  
Insulation materials made of rock wool for various industrial sectors

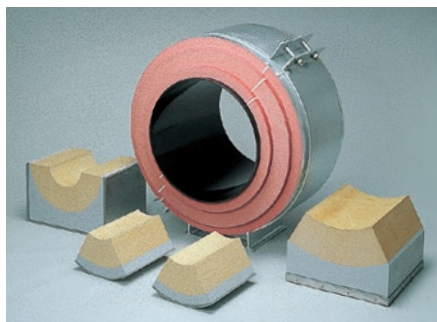


● **KEICAL ACE SUPER SILICA™ \***  
Super light weight calcium silicate insulation  
\*KEICAL ACE SUPER SILICA is a trademark of NIPPON KEICAL LIMITED.

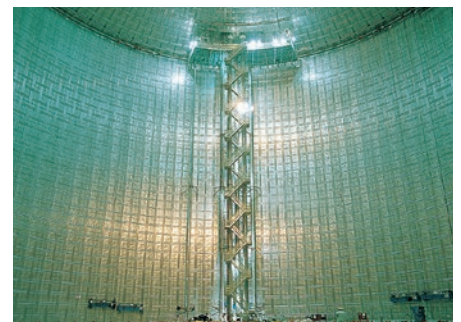
## INSULATION MATERIALS FOR MOLTEN ALUMINIUM APPLICATIONS



● **LUMIBOARD™**  
Non asbestos calcium silicate board for aluminium industry  
● **LUMISUL™**  
Specially formulated castable for molten aluminium applications



● **FOAMNERT™ Support**  
Heat insulating supports for cryogenic piping



● **Insulation Contract**  
LNG underground storage tank insulated by our cryogenic insulation material

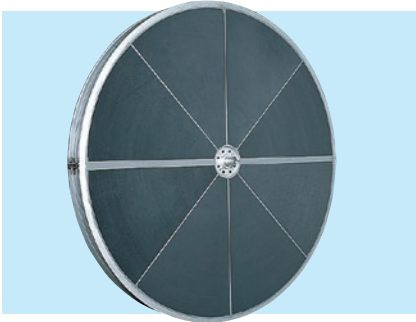
## COLD INSULATION MATERIALS



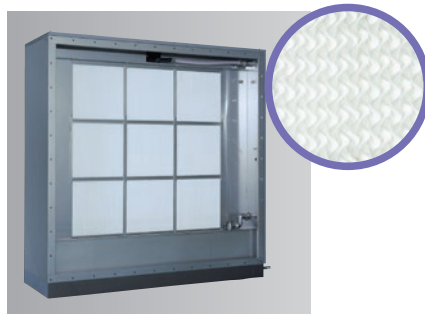
# SPECIALITY PRODUCTS

Advanced technology provides various products from agriculture to environmental fields

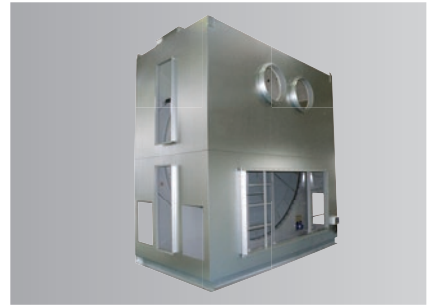
## HONEYCOMB FILTERS



● **HONEYCLE™ SG**  
Industrial dehumidifying rotor that creates low dew-point air

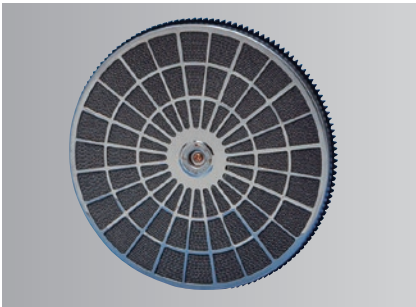


● **HONEYCOMB WASHER™**  
Air washer for semiconductor application



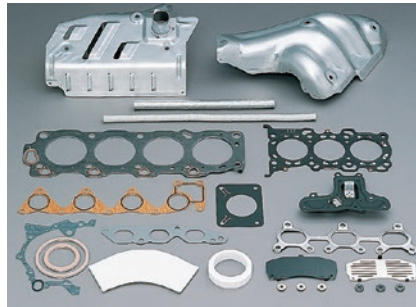
● **SOLVENTCLEAN™**  
VOC concentrator suitable for a large airflow volume and low concentration of exhaust gas removal

## HONEYCOMB FILTERS



● **HONEYCLE™ GX**  
Dehumidifying rotor for desiccant-type clothes dryer and dehumidifier

## AUTOMOTIVE PARTS



● **Auto Parts**  
Automotive gaskets and other parts

## BUILDING MATERIALS



● **Free access floor system**  
Various types of raised access floors

## MISCELLANEOUS PRODUCTS



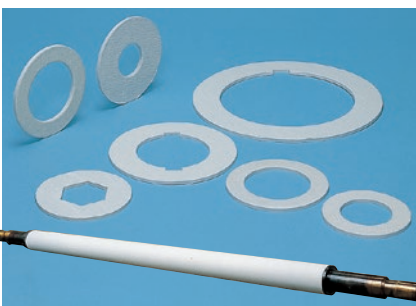
● **Thread Seal Tape**  
Unsintered PTFE tape for plumbing



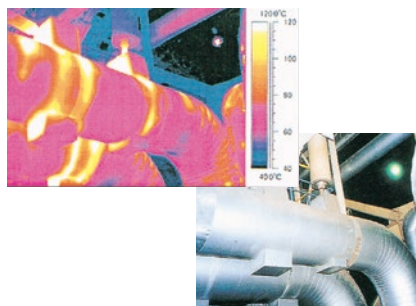
● **Bellow-Q™**  
Non-metallic flexible expansion joint for waste incinerator plants and power plants



● **Brake Lining**  
Friction materials for industrial uses especially lifts, moorings, windlasses, electromagnetic brakes, etc



● **Disk Roll**  
Disks for covered rolls in plate glass and stainless steel industry

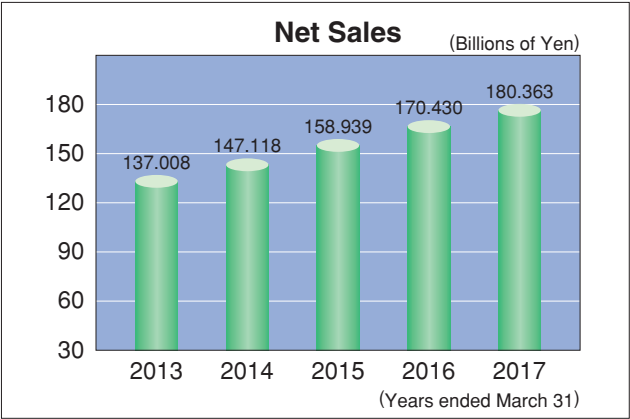


● **Heat Loss Analysis System**  
Giving energy saving advice by analyzing radiation heat

■ **Outline** (As of September 30, 2017)

Corporate name    NICHIAS Corporation  
Founded            April 9, 1896  
Head Office        6-1, Hatchobori 1-Chome, Chuo-ku,  
Tokyo 104-8555, Japan  
Capital             12,128 million yen  
Employees         5,725

■ **Consolidated Sales Performance**



■ **Network**



● **Global Network**

**Indonesia**

**PT. NICHIAS SUNIJAYA**  
Sales of sealing materials, insulation materials, fluoropolymer products, auto parts, building materials, and Engineering and insulation work

**PT. NICHIAS ROCKWOOL INDONESIA**  
Manufacture of sealing materials, insulation materials, and auto parts

**PT. NICHIAS METALWORKS INDONESIA**  
Manufacture of sealing materials and building materials

**Malaysia**

**NICHIAS FGS SDN. BHD.**  
Manufacture and Sales of sealing materials, fluoropolymer products, auto parts, building materials, and Sales of insulation materials

**NICHIAS SOUTHEAST ASIA SDN. BHD.**  
Sales of insulation materials, and Engineering and insulation work

**NT RUBBER-SEALS SDN. BHD.**  
Manufacture of sealing materials

**Singapore**

**NICHIAS SINGAPORE PTE. LTD.**  
Sales of sealing materials, insulation materials, Filters, fluoropolymer products, auto parts, and building materials

**Vietnam**

**NICHIAS HAIPHONG CO., LTD.**  
Manufacture and Sales of sealing materials, filters, and fluoropolymer products

**NICHIAS VIETNAM CO., LTD**  
Sales of sealing materials, insulation materials, fluoropolymer products, and auto parts

**Thailand**

**NICHIAS (THAILAND) CO., LTD.**  
Manufacture and Sales of auto parts

**THAI NICHIAS INTERNATIONAL CO., LTD.**  
Sales of sealing materials, insulation materials, and fluoropolymer products

**THAI-NICHIAS ENGINEERING CO., LTD.**  
Sales of insulation materials, and Engineering and insulation work

**China**

**NICHIAS (SHANGHAI) TRADING CO., LTD.**  
(霓佳斯 (上海) 貿易有限公司)  
Sales of sealing materials, insulation materials, filters, fluoropolymer products, and building materials

**NICHIAS (SHANGHAI) TRADING CO., LTD. GUANGZHOU BRANCH**  
(霓佳斯 (上海) 貿易有限公司 廣州分公司)  
Sales of sealing materials, insulation materials, filters, fluoropolymer products, and building materials

**NICHIAS (SHANGHAI) AUTOPARTS TRADING CO.,LTD.**  
(霓佳斯 (上海) 汽零部件貿易有限公司)  
Sales of auto parts

**SUZHOU NICHIAS INDUSTRIAL PRODUCTS CO., LTD.**  
(蘇州霓佳斯工業製品有限公司)  
Manufacture of fluoropolymer products and auto parts

**SUZHOU NICHIAS SEAL MATERIAL CO., LTD.**  
(蘇州霓佳斯密封材料有限公司)  
Manufacture of sealing materials, insulation materials, and filters

**SHANGHAI XINGSHENG GASKET CO., LTD.**  
(上海興盛密封有限公司)  
Manufacture and Sales of auto parts

**SHANGHAI GOYU AUTOPARTS CO., LTD.**  
(上海五友汽車零部件有限公司)  
Manufacture and Sales of auto parts

**India**

**NICHIAS INDUSTRIAL PRODUCTS PRIVATE LTD.**  
Manufacture and Sales of auto parts

**Germany**

**NICHIAS AUTOPARTS EUROPE GmbH**  
Sales of auto parts

**United Kingdom**

**NICHIAS EUROPE (UK) LTD**  
Sales of sealing materials, insulation materials, Filters, and fluoropolymer products

**Czech**

**NICHIAS AUTOPARTS EUROPE a.s.**  
Manufacture and Sales of auto parts

**Mexico**

**NAX MFG. S. A. DE C. V.**  
Manufacture and Sales of auto parts

● **Group companies in Japan**

**NICHIAS CERATECH CO., LTD.**  
Manufacture and sale of insulation materials and building materials

**SAKAI NICHIAS CORPORATION**  
Manufacture of insulation materials

**KOKUBU INDUSTRY CORPORATION**  
Manufacture of insulation materials and auto parts

**TOKYO MATERIALS CORPORATION**  
Sale of fluoropolymer products

**TATSUTA INDUSTRY CORPORATION**  
Manufacture of insulation materials, auto parts and building materials

**OHTA KASEI CORPORATION**  
Manufacture of insulation materials

**NICHIAS MECHATECHNO CO., LTD.**  
Manufacture of sealing materials and fluoropolymer products

**NICHIAS KANTO SALES CORPORATION**  
Sale of sealing materials, insulation materials and fluoropolymer products

**NISHI-NIPPON NICHIAS CO., LTD.**  
sale of sealing materials and fluoropolymer products

**HAMAASU CORPORATION**  
Sale of sealing materials, insulation materials, fluoropolymer products and building materials, installation work of building materials

**NIPPON THERMAL ENGINEERING CORPORATION**  
Engineering and construction of insulation materials

**NICHIAS ENGINEERING SERVICE CORPORATION**  
Engineering and construction of insulation materials

**INOCRETE CO., LTD.**  
Engineering and construction of insulation materials

**NICHIAS KYUSHU SALES CO.,LTD**  
Sale of sealing materials, insulation materials and fluoropolymer products

**FUKUSHIMA NICHIAS CORPORATION**  
Manufacture of fluoropolymer products and insulation materials

**KUMAMOTO NICHIAS CORPORATION**  
Manufacture of fluoropolymer products

**METAKOTE INDUSTRY CORPORATION**  
Manufacture of auto parts

**APJ Corporation**  
Manufacture of auto parts

**NIPPON ROCKWOOL CORPORATION**  
Sale of building materials and agricultural products

**KIMITSU ROCKWOOL CORPORATION**  
Manufacture of building materials

**NICHIAS CEMCRETE CORPORATION**  
Sale and construction of building materials

**NICHIAS KYOSHIN CORPORATION**  
Insurance agency



# NICHIAS Corporation

## ■ Head Office

6-1, Hatchobori 1-chome, Chuo-ku, Tokyo 104-8555, Japan

### International Marketing and Sales Group

Phone: 81-3-4413-1132 Fax: 81-3-3552-6108

Web Site: <http://www.nichias.co.jp/>

## ■ Overseas Sales Companies

### Indonesia

#### PT. NICHIAS SUNIJAYA

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Suite A1102, 11th Floor, West Wing, Wisma Consplant 2, No. 7, Jalan SS 16/1, 47500 Subang Jaya, Selangor Darul Ehsan, Malaysia.  
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### Singapore

#### NICHIAS SINGAPORE PTE. LTD.

25 International Business Park, #01-15/17 German Centre, Singapore 609916

Phone: +65-6571-0830/0838 Fax: +65-6265-7681

### Vietnam

#### NICHIAS VIETNAM CO., LTD

Room 12-K, 12Floor, Center Building, Hapulico Complex No1 Nguyen Huy Tuong, Thanh Xuan Trung, Thanh Xuan, Hanoi, Vietnam  
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### Thailand

#### NICHIAS (THAILAND) CO., LTD.

85 Moo 1, Wellgrow Industrial Estate T. Homsin, A. Bangpakong Chachoengsao 24180, Thailand  
Phone: +66-38-570-600 Fax: +66-38-570-601

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Phone: +66-2-001-2060 Fax: +66-2-001-2062

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竟佳斯（上海）贸易有限公司  
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Phone: +86-21-6236-1783 Fax: +86-21-6236-1781

#### NICHIAS (SHANGHAI) TRADING CO., LTD. Guangzhou Branch

竟佳斯（上海）贸易有限公司 广州分公司  
17F-G, Gold Sun Building, No.109 Tiyu West Road, Guangzhou, Guang Dong Province, 510620, P.R.China  
中国广东省广州市天河区体育西路109号高盛大厦17楼G室 邮编 510620  
Phone: +86-20-3879-1640 Fax: +86-20-3879-1647

#### NICHIAS (SHANGHAI) AUTOPARTS TRADING CO., LTD.

竟佳斯（上海）汽车零部件贸易有限公司  
Room 1702, THE PLACE, Tower A, No. 100 Zun Yi Road, Changning District, Shanghai, P.R.China Postcode 200051  
中国上海市长宁区遵义路100号虹桥南丰城A栋1702室 邮编200051  
Phone: +86-21-6236-2668 Fax: +86-21-6236-2667

### Germany

#### NICHIAS AUTOPARTS EUROPE GmbH

Prinzenallee 7, 40549 Düsseldorf, Germany  
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### United Kingdom

#### NICHIAS EUROPE (UK) LTD

10th Floor, Hardman Street, Manchester, M3 3HF, UK  
Phone: +44-0-161-932-1422 Fax: +44-0-161-932-1401

## ■ Overseas Construction Companies

### Malaysia

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Phone: +60-3-5636-4067 Fax: +60-3-5636-4078

### Thailand

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45 Huaypong-Nongbon Road, Huaypong, Muang Rayong, Rayong Province 21150, Thailand  
Phone: +66-38-682-242 Fax: +66-38-691-156

## ■ Overseas Factories

### Indonesia

#### PT. NICHIAS ROCKWOOL INDONESIA

#### PT. NICHIAS METALWORKS INDONESIA

### Malaysia

#### NICHIAS FGS SDN. BHD.

#### NT RUBBER-SEALS SDN. BHD.

### Vietnam

#### NICHIAS HAIPHONG CO., LTD.

### China

#### SUZHOU NICHIAS INDUSTRIAL PRODUCTS CO., LTD.

(苏州竟佳斯工业制品有限公司)

#### SUZHOU NICHIAS SEAL MATERIAL CO., LTD.

(苏州竟佳斯密封材料有限公司)

#### SHANGHAI XINGSHENG GASKET CO., LTD.

(上海兴盛密封垫有限公司)

#### SHANGHAI GOYU AUTO PARTS CO., LTD.

(上海五友汽车零部件有限公司)

### India

#### NICHIAS INDUSTRIAL PRODUCTS PRIVATE LTD.

### Czech

#### NICHIAS AUTOPARTS EUROPE a.s.

### Mexico

#### NAX MFG, S.A.DE C.V.

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- 1) The information and recommendation in this catalog are based on our present state of knowledge and given in good faith for customer guidance purpose, and no liability will be accepted in relation to the same.
- 2) Properties/applications shown in this catalog are typical. The products shown in this catalog shall not be used for any purpose other than prescribed application.
- 3) Performance data shown in this catalog are developed from in-house testing and/or field reports from customers. Failure to select the proper products could result in property damage and/or serious personal injury.
- 4) Performance verification under actual operating conditions is recommended even for the application shown in this catalog.
- 5) While the utmost care has been used in compiling this catalog, we assume no responsibility for errors. This edition cancels previous issues and contents of this catalog are subject to change without prior notice.
- 6) For safe handling recommendations and health related effects, refer to the safety data sheet (SDS) of each product, available on request.
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