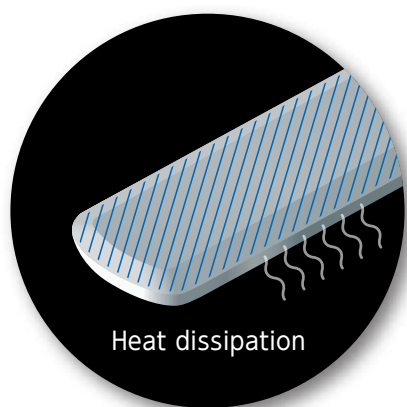


Disposable Electrosurgical Pencil

RAIKIRI®



Disposable Active Electrode

CHIDORI®



"CHO" MONODZUKURI Innovative Parts and Components Award

NIHON PARKERIZING CO.,LTD.

Marketing authorization holder

Medical Devices Division  
Life Science Sector  
Nihon Parkerizing Co., Ltd.

1-15-1, Nihonbashi, Chuo-ku, Tokyo, 103-0027  
Phone: +81-3-3278-4409 Fax: +81-3-3278-4328  
URL: <https://www.parker.co.jp/en/index>

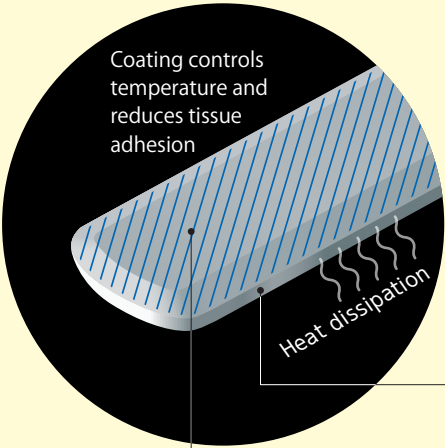


Marketing Authorization Number: 13B2X10386


Distributor

# Controls temperature and reduces tissue adhesion

Developed by combining Nihon Parkerizing's coating agents and our proprietary coating technology.



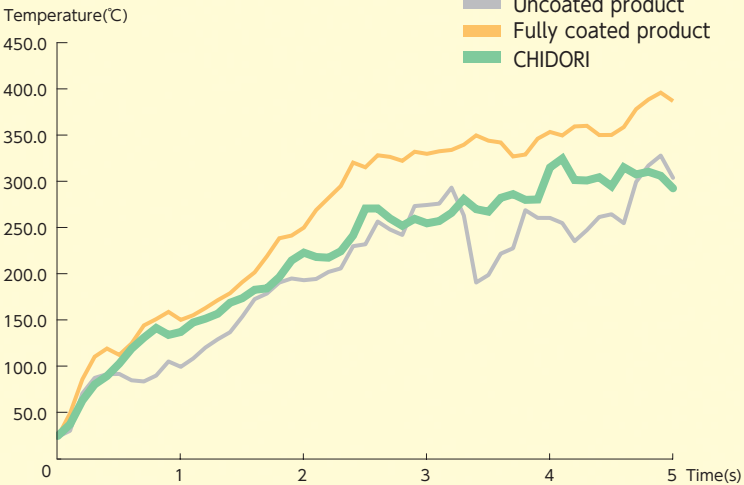
**Uncoated surface (sides)**  
Sides are left uncoated to create an electrical discharge area, improve heat dissipation performance and controls temperature.

**Coated surface**   
Continually refined over many years, Nihon Parkerizing's proprietary resilient coating technology makes wiping off scorched deposits quick and easy.

Appropriate criteria were chosen from the viewpoint of controlling temperature and preventing scorching.

(The study compared performance with that of other Nihon Parkerizing products.)

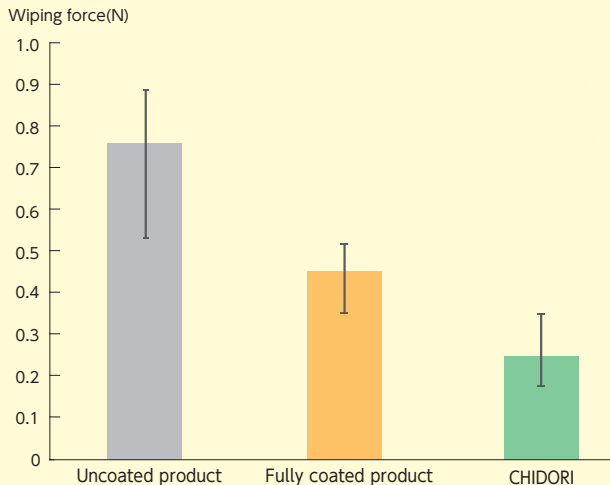
## Controlling temperature



Rises in electrode temperature at the scalpel tip occur possibly for the following two reasons:  
1. Scorching increases resistance, causing temperature rise.  
2. Coating the distal tip of the blade electrode inhibits heat dissipation, causing temperature rise.  
The proprietary coating technology used in CHIDORI® successfully controlled the temperature.

Experimental method: The temperature of the distal tip of the blade electrode was measured using a radiation thermometer while electricity was discharged into porcine blood from the blade electrode's distal tip (power output, 75 W).

## Tissue adhesion reduction



Nihon Parkerizing's coating material reduces tissue adhesion. CHIDORI® successfully reduced deposit adhesion while maintaining coating performance by controlling temperature.

Experimental method: The distal tip of the blade electrode was inserted 2.0 mm into a sample of porcine blood and electricity was discharged to generate scorching on the surface. Wiping force was measured using a scratch tester.

MDF5-0025C

MDF5-0026C

MDF5-0027C

MDF5-0028C

MDF5-0029C

MDF5-0030C

Actual-size images.

Brand name: CHIDORI Disposable Active Electrode			Generic name: High-frequency surgical equipment Medical Device Certification Number: 301AGBZX00022000		
Product number	Product name	Total length	Blade tip insulation	Quantity per package	JAN code
MDF5-0025C	Coated blade electrode 7CM	7cm	—	10/box	4580618120254
MDF5-0026C	Coated blade electrode 7CM, insulation type		Yes		4580618120261
MDF5-0027C	Coated blade electrode 10CM	10cm	—		4580618120278
MDF5-0028C	Coated blade electrode 10CM, insulation type		Yes		4580618120285
MDF5-0029C	Coated blade electrode 15CM	15cm	—		4580618120292
MDF5-0030C	Coated blade electrode 15CM, insulation type		Yes		4580618120308



RAIKIRI Disposable Electrosurgical Pencil

RAIKIRI®



Holster included.

Brand name: RAIKIRI Disposable Electrosurgical Pencil

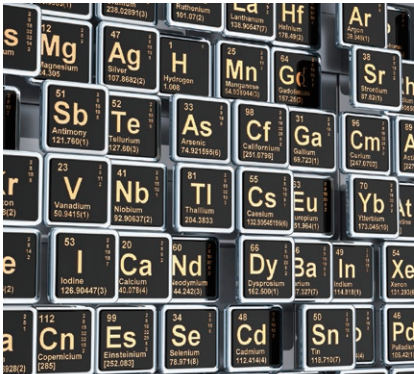
Generic name: High frequency surgical equipment  
Medical Device Certification Number: 302AFBZX00119000

Product number	Product name	Total length	Blade tip insulation	Quantity per package	JAN code
MDF8-R025C	Pencil (coated blade electrode 7CM)	7cm	—	1	4580618120520
MDF8-R026C	Pencil (coated blade electrode 7CM, insulated type)		Yes		4580618120537

## Nihon Parkerizing at a glance

Research and Development  
Cost per Sales

4.6%



The Central Research Laboratories are the nucleus of Nihon Parkerizing's research and development. In order to expand into growing fields in the future, we continually invest over 2 billion yen each period. This is equivalent to 2.3% of the Parker Group's sales.

Paint Pre-treatments for Automotive  
Global Share of Surface Treatment

70%

Note: According to a company survey.



Our share of the market for Japanese automotive manufacturers around the world exceeds 70%. The Parker Group continues to evolve as the top manufacturer of surface treatments due to our close business relationship with our customer and our superior technical capabilities.

Anniversary of our Founding

94<sup>th</sup>

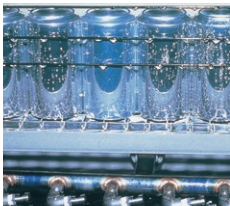


Nihon Parkerizing was established in Marunouchi (Tokyo) in 1928 and celebrated its 90th anniversary in 2018. Our reliable and trustworthy services are highly evaluated by our customer.

Chemicals

3,900

chemicals



We have formulated 3,900 types of chemicals ready for manufacture. With such an extensive range of chemicals in the niche industry of surface treatments, we are able to respond to the needs of our clients in detail. This number is also an indicator of our significant development capabilities.

Processing Services

50

different processes



We provide approximately 30 types of conversion coatings, 10 types of heat treatments, 3 types of plating treatments, and 7 types of coatings. We add a diverse range of functions to the work entrusted to us by our clients, who are highly satisfied with our service.

Sales Increase  
Ratio over 5 Years

29.5%



Sales reached 129.2 billion yen in March 2019 (consolidated base). This is a 29.5% increase over the past 5 years. Growth is continuing in our three key business, including our chemicals, engineering, and processing services businesses.

Operations in Japan

46

locations



In addition to the head office and Central Research Laboratories, we have 8 technical centers, 18 sales offices, and 18 factories in Japan, and have the capability to provide swift and reliable service to our clients.

Group Network

56

companies



Since establishing our overseas first joint venture company in Taiwan in 1965, we have actively developed our business globally. We now operate in 56 locations in 12 countries, in North America, Europe, and particularly Asia.