

# Applications and Achievements of Asahi Chemical Products

～ Asahi Chemical products are used in such places ～

# What are Asahi Chemical products?

## Ink・Paste, Conductive, Insulation ...

- They are some of the electronic materials used in electronic products, and in viscous liquid state.
- They are mainly used by screen printing.  
They have characteristics such as conductivity (insulation), color, resolution, and flexibility.

### Ink・Paste

#### Insulation system

Masking ink



Insulation paste



#### Conductive system

Silver paste



Carbon paste



### Product (container) appearance



### Screen printing

( Example of silver paste screen printing )



Photo cooperation : Micro-tec Co., Ltd.

## Where are they used?



Used in various products or in the process of making products

Used in the product …p.4~7

**Automobile**…p.4



**Computer** …p.5



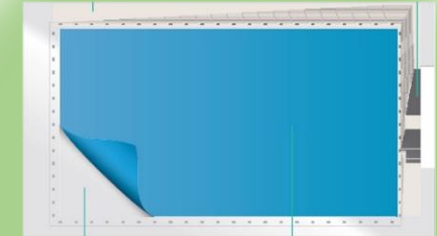
**Smartphone** …p.6



**Medical • Healthcare** …p.7



Used in the manufacturing process …p.8



Protect the touch panel surface from scratches and dust during the touch panel manufacturing process for PC, smartphone etc.



Protect the parts you don't want to plate when plating the terminal parts on the substrates of PC, smartphone etc.



## Automobile

The electrification, weight reduction, and integration of automobiles accelerate, and the inks are replacing some of the materials used in the conventional electrical components. In addition, the applicable place of ink are diversifying due to the increasing demand for sensors and heaters.

### Room mirror

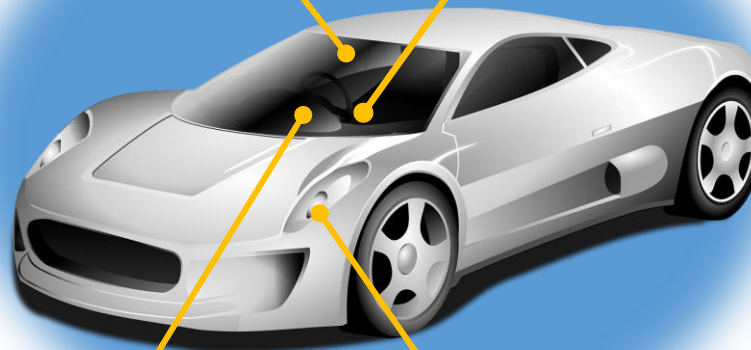


- For room mirror electrodes : Silver paste

### Console part



- Operation touch panel : Silver paste
- Throttle sensor : Carbon paste



### Car navigation system



- Touch panel
- Silver paste for bezel part wiring
- Insulation paste
- Masking ink

### Head/Tail lamp



- Heater wiring : Silver paste
- Wiring insulation protection
- Insulation paste

※For the products in photos, we are posting those that are expected for our products to be applicable or those that have been adopted.

## Computer

A large amount of ink is also used for PC and notebook PC displays, substrates, and parts.  
They are used for a wide range of purposes, such as for circuits, for insulation, and for sensors.

### Keyboard



- Membrane keyboard : Silver paste
- : Carbon paste
- : Insulation paste

### Substrate

### PCB・FPC



- EMI shield : Silver paste
- Insulation protection/Marking : Insulation paste
- Plating process protection film : Plating resist ink

### Display



- Light source unit : UV curing insulation paste
- Glass substrate for display : Masking ink

### Touch pad



- Pressure sensitive touch sensor : Carbon paste

※For the products in photos, we are posting those that are expected for our products to be applicable or those that have been adopted.



## Smartphone

Asahi Chemical's inks are used for substrates, sensors, camera modules, and protection along with higher functionality, lighter weight, and faster communication for smartphones.

### Display



- Touch panel
  - : Silver paste for picture frame wiring
  - : Insulation paste, : Masking ink

### Camera module



- Camera module FPC : Insulation paste
  - : Plating resist ink

### Bending part · Electromagnetic wave shield



- EMI shield : Silver paste
  - : Insulation paste

### Fingerprint authentication



- Fingerprint authentication sensor part
  - : Silver past, : Insulation paste

※For the products in photos, we are posting those that are expected for our products to be applicable or those that have been adopted.

## Medical, Healthcare

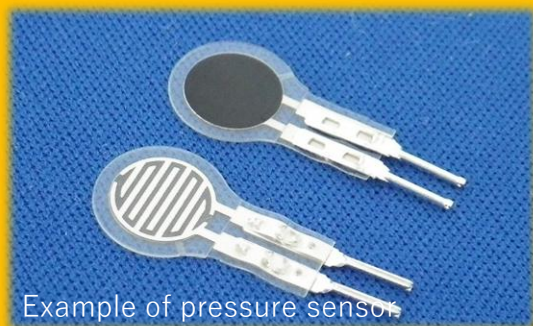
We have a long adoption results in disposable medical devices. In recent years, we are also expanding our actual achievement to wearable and biological sensor applications.

### Thermo cutter



- Disposable tube cutter : silver paste

### Biological sensor



Example of pressure sensor

- Sensor electrode : Elastic silver paste
- Sensor : Carbon paste

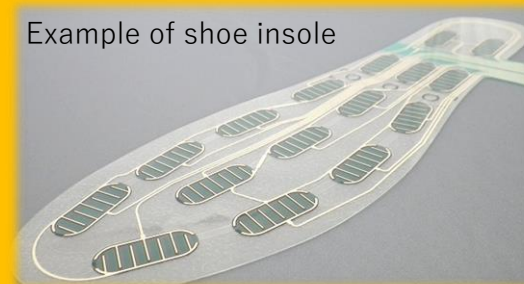


### Blood glucose sensor



- Sensor part : Carbon paste
- Sensor wiring : Silver paste
- Wiring protection : Insulation paste

### Others

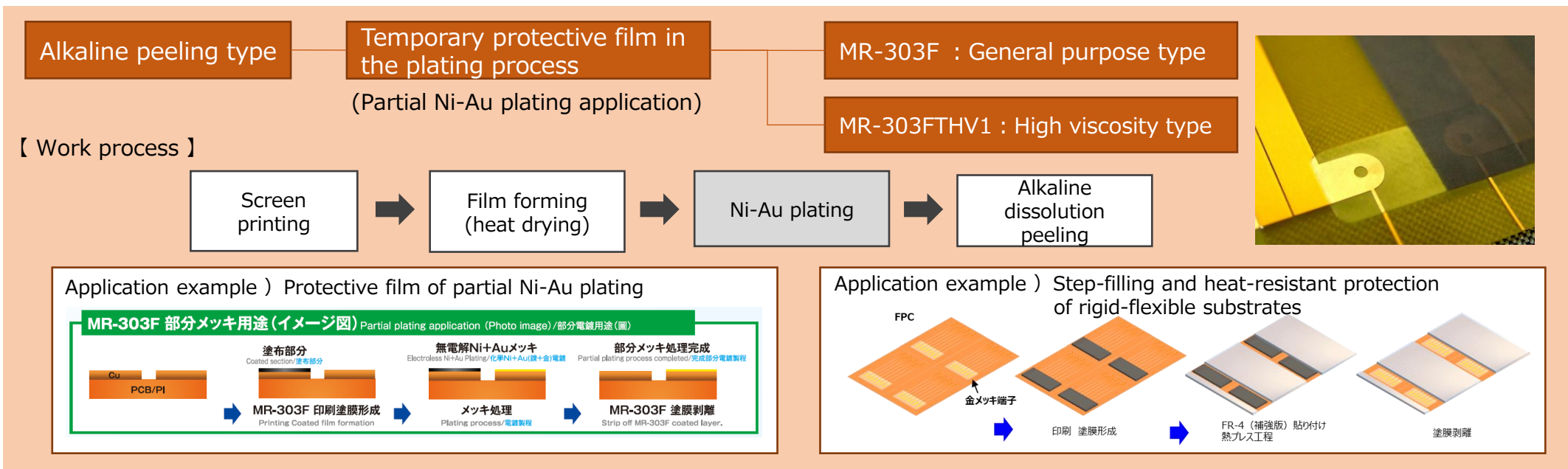
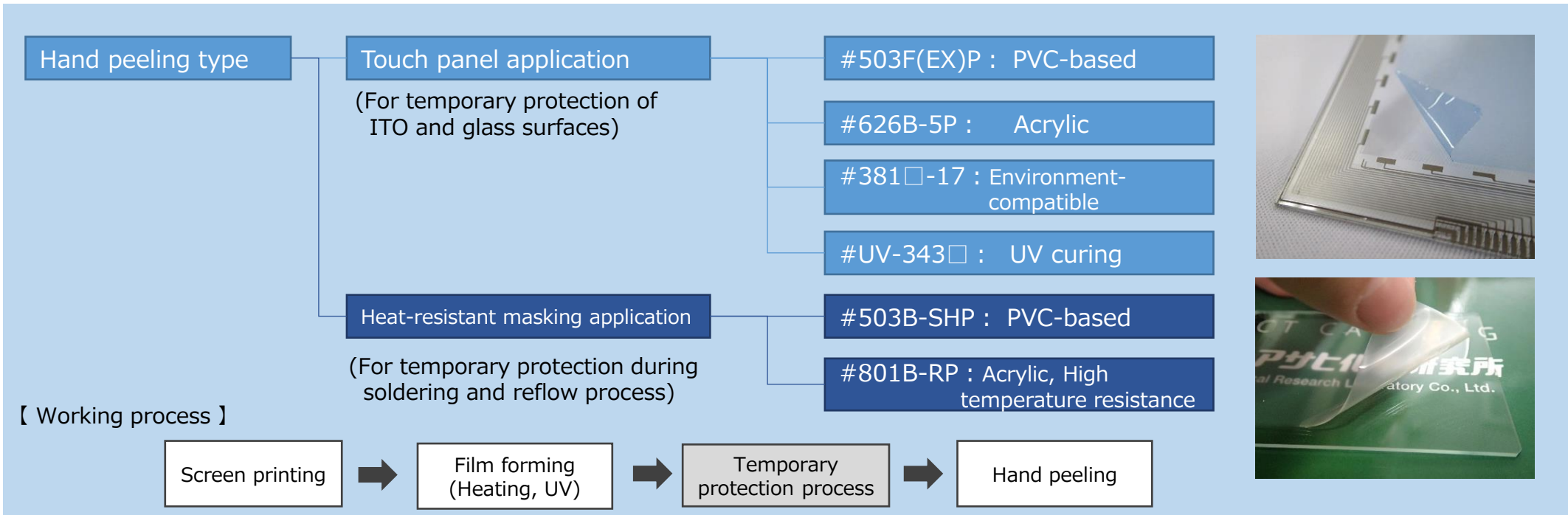


Example of shoe insole

- Wiring : Silver paste
- Pressure sensor part : Carbon paste

※For the products in photos, we are posting those that are expected for our products to be applicable or those that have been adopted.

# Masking ink introduction ( Hand peeling type, Alkaline peeling type)





## Automobile

### Room mirror part

Intended use	Product name
For room mirror electrodes	● LS-504ET-3

### Console part

Intended use	Product name
For 3D touch sensor Circuit wiring	● LS-610-7 ● LS-610-9A
For 3D touch sensor Insulation and protection	● CR-80T-7
For throttle sensor sliding part	● BTU-〇〇-10 series

### Car navigation

Intended use	Product name
Touch panel picture frame wiring	● LS-463-1(1500) etc.
For circuit/wiring insulation Heat cuing	● FR-1T-NSD9 ● FR-1T-US1
For circuit/wiring insulation UV curing	● UVF-31T
Dot spacer	● UVF-10T-DS
Temporary protective film for glass and ITO surfaces	● #503 series

### Head/tail lamp part

Intended use	Product name
For special substrate and wiring	● LS-612-1
Circuit/wiring Insulation application	● UV curing type insulation paste

● Silver paste    ● Carbon paste    ● Masking ink  
 ● Insulation paste    ● Plating resist ink

## Personal Computer

### Keyboard

Intended use	Product name
Membrane keyboard	● SW2200C
Terminal protection	● TU-10S ● FTU-16R ● FTU-〇〇-3
Insulation protection	● FR-1T-NSD9 ● FR-1G-2 ● CR-62B ● CR-75B ● CR-18T-KT1 etc.

### Substrate

Intended use	Product name
EMI shield・FPC wiring	● SW1100-1 ● SW2200C
Touch panel substrate Insulation protection	● UVF-30T ● UVF-10T(KAI)
Legend ink	● FCR-80W-30 ● FCR-82W-30
Plating process Temporary masking ink	● MR-303 series

### Display

Intended use	Product name
Light source unit Insulation protection	● UV curing type insulation paste
Process protection of glass substrate for display	● Plating resist ink ● Masking ink

### Touch pad

Intended use	Product name
Pressure sensitive touch sensor	● Carbon paste

## Smartphone

### ■ Display

Intended use	Product name
Touch panel picture frame wiring material	● LS-920L etc.
Insulation protection Heat curing	● CR-18□ series ● FR-1T-NSD9
Insulation protection UV curing	● UVF-10T(KAI) ● UVF-30T
Temporary protective film for glass and ITO surfaces	● #503 series

### ■ Camera

Intended use	Product name
Camera module FPC	● Photo resist ink
Marking ink	● CR-18W series ● FCR-82CV-30
Plating process Temporary masking ink	● MR-303 series

### ■ Bending part・Electromagnetic wave shield

Intended use	Product name
EMI shield・FPC wiring	● SW1100-1, SW2200C
Insulation protection	● CR-18C-KT1 etc.

### ■ Fingerprint authentication

Intended use	Product name
Fingerprint authentication Sensor part electrode	● LS-453 series
Insulation protection	● Heat curing type insulation paste

## Medical and Healthcare related

### ■ Thermo cutter

Intended use	Product name
Disposable tube cutter	● Silver paste

### ■ Biosensor

Intended use	Product name
Correspond to stretchable substrates Electrodes	● LS-453-6A, LS-453-6B

### ■ Blood glucose sensor

Intended use	Product name
Sensor	● Carbon paste ● Silver paste
Insulation coating film	● UV curing type insulation paste

### ■ Others

Intended use	Product name
Pressure sensitive sensor Wiring	● LS-453-6A, LS-453-6B ● Carbon paste

● Silver paste ● Carbon paste ● Masking ink  
● Insulation paste ● Plating resist ink





株式会社 **アサヒ化学研究所**

Asahi Chemical Research Laboratory Co.,Ltd.

<https://www.asahi-kagaku.co.jp>