

Corporate Name	JAPAN PURE CHEMICAL CO.,LTD
Established	July 16, 1971
Head Office	3-10-18 Kitamachi, Nerima-ku, Tokyo 179-0081, Japan
Stock Listing	Listing on TSE First Section (Securities Code : 4973)
Representative	Dr. Shigeki Shimizu (COO)
Employees	46
Paid-in Capital	¥1,279 million
Closing of Accounts	March
Main Business	Development, sales and manufacture of precious metal plating chemicals for electronic devices
Shareholders	7,817

What kind of company is JPC?

CS by CS

Customers Satisfaction by Challenge & Speed

We are a company which develops, manufactures and sells the chemical formulation for metal plating, especially specializing in precious metal plating using “gold” or “palladium” among various applications of metal plating for electronic devices.

【Main End Products】

IC Printed Board



Connector



Mobile Phone



What is metal plating?

A chemical reaction to form a metallic film by reducing metallic ions dissolved in the water

Why is gold plating needed?

- ◆ Electronic equipments such as PCs or mobile phones consist of many electronic devices.
- ◆ These electronic devices are connected by direct contact or through electric circuit. If electronic current doesn't pass through each components, electronic equipments don't operate correctly.
- ◆ Therefore, high conductivity and bonding reliability are required for connecting pads.

The most suitable material for connecting pads is Gold!

【Gold's physical property】

- ◆ Anti-rust(Gold never rusts)
- ◆ Low electrical resistance(Gold shows excellent conductivity)
 - Besides gold, precious metals such as palladium also suitable for the contacts and the junctions

“Electroplating” and Our Main Products

- A method of supplying electrons from the voltage source by the electric wiring
 - Though electroplating technology is well established, electric circuit must be installed inside the device to supply electrons.
 - When electric circuit gets complex and space is limited, this additional circuit brings disadvantages.

【Our Main Chemicals for Metal plating】

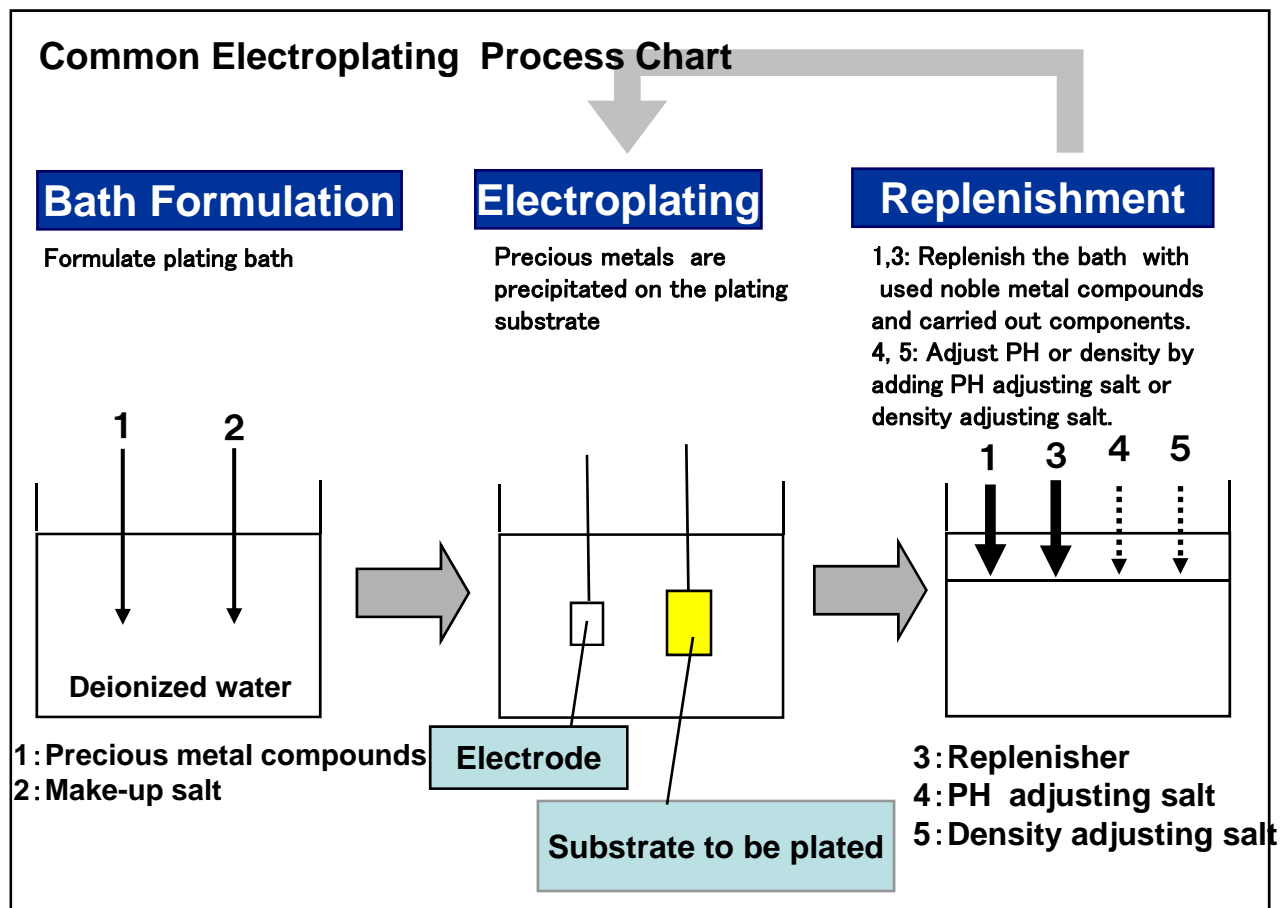
1. Precious metal compounds
Liquidated or powdered precious metal compounds easily soluble in the bath.

2. Make-up salt
Make-up salt is used to formulate new plating bath, which is a mixed composition used in the deionization water.

3. Replenisher
When precious metal is precipitated, the components other than precious metals also decrease, so that must be supplied regularly. These components are mixed as a replenisher.

4. PH adjusting salt
Acidic mixture to keep the PH constant.

5. Density adjusting salt
Water-soluble mixture to keep the density constant.

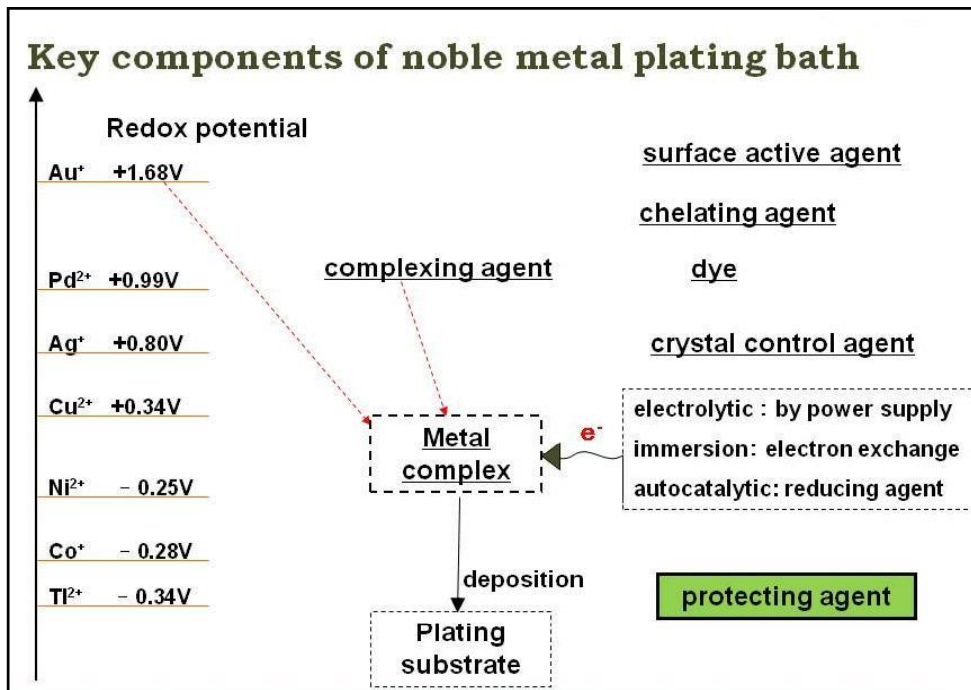


Electroless Plating and Our Main Products

- ◆ A method not using electron-supply circuit (using chemical reaction)
 - Demand is increasing because of the increase of package density.
 - More strict control of the bath is required.

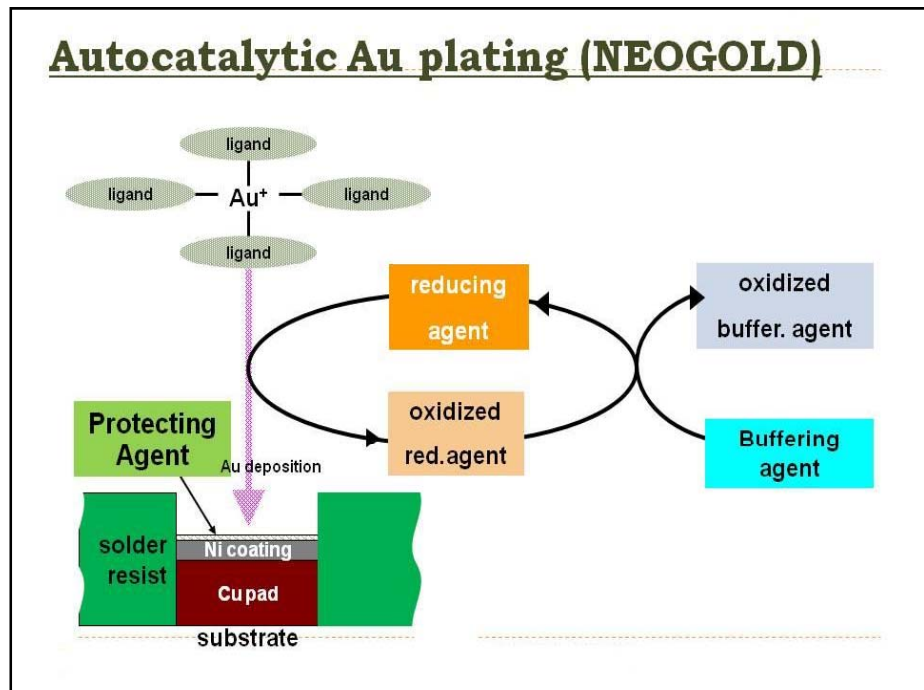
① Bath composition

Plating bath is composed from many components. Main difference between electroplating and electroless plating is the way to bring electrons to the bath.



② Auto catalytic metal plating


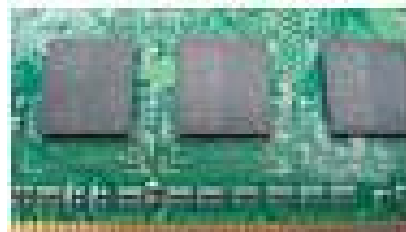


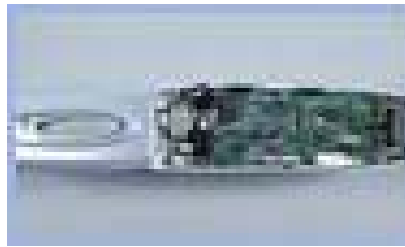



Metallic ions precipitates as a metal by receiving electrons from reducing agents (you can get thick metal plating by this method)

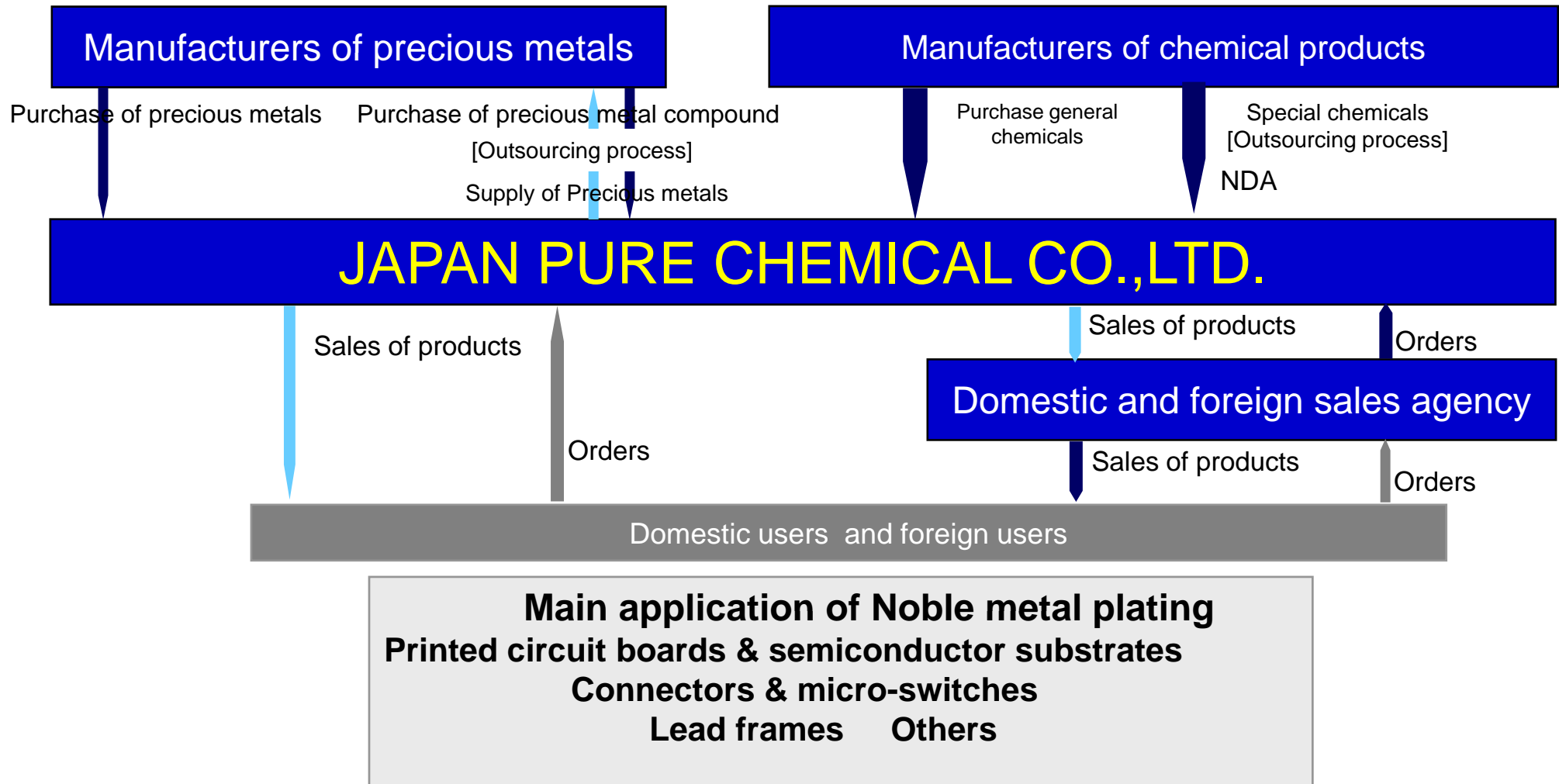


Methods of Metal Plating and Applications

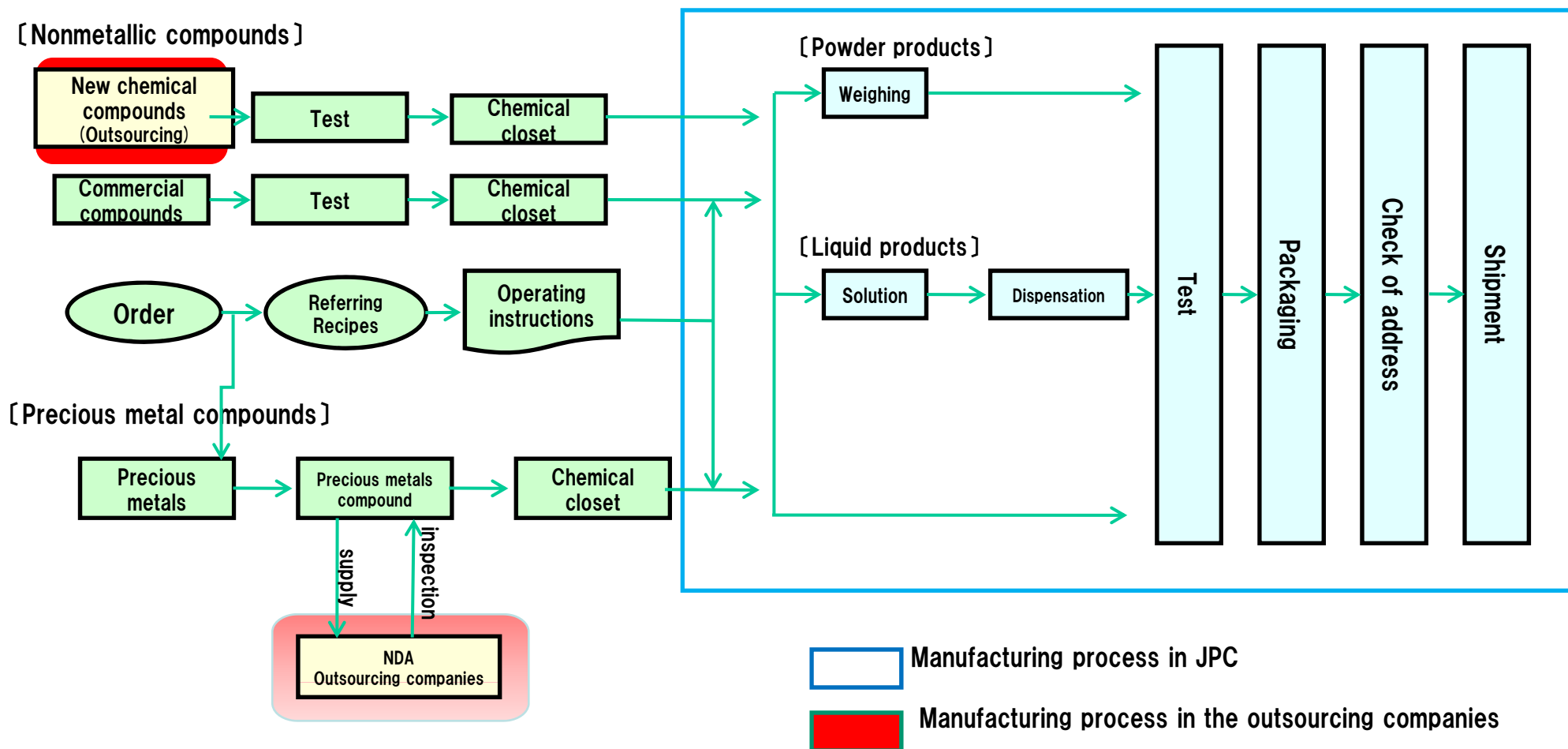
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Methods of metal plating		Typical Applications		Our Products
Electroplating	Pure gold plating (more than or equal to 99.99%)			The series of TEMPERESIST is suitable for wire bonding connection of IC packages.
	Hard gold plating (Alloy of gold and cobalt)			The series of OROBRIGHT is suitable for the connections of the contacts such as connectors. BAR7 was developed for fine connectors.
Electroless plating	Immersion gold plating			The series of IM-GOLD is used for fine wiring of mobile phones and suitable for ACF connections and solder bonding.
	Auto catalytic gold plating			The series of NEOGOLD is used for high-speed MPU packages such as servers or desktop PCs, and has a high level of connection characteristic with sockets.



We curb the overhead by outsourcing the synthesis of new compounds.
Our Manufacturing Division performs like a speedy dispensing pharmacy.



1

JPC has many top shared products, e.g. gold metal plating solutions for electronic devices.

- We specialize in plating chemicals for the electronic industries.
- Our unique technologies enable us to keep abreast of leading edge technologies.
- We provide chemical formulation which contribute to save the cost (e.g. saving of precious metals) of customers.

2

We can propose total solutions

- We can propose the most suitable formulation and its operating condition considering customers' equipments and plating devices.
- We develop new chemical formulation by chemists with diversified backgrounds.
- Leading-edge analytical equipments help to investigate and solve the problems coming from customers.
- Our unique system in which all the divisions, Sales Division, Technology Division, Manufacturing Division, and Corporate Administration division, are located in the same office, helps our speedy decision-making and quick responses to the customers. We can maintain our maximum efficiency with few people.

3

Effective manufacturing system

- We have the simple manufacturing system in which we can achieve quick delivery.
- Our Manufacturing Division specialize in formulation (dispensing).
- Regarding procurement of new components, we effectively utilize outsourcing (under NDA).

4

Strong financial standing, high profitableness, and shareholder-minded management

1971 Jul.	Establishment of JPC for the development, sales, and manufacture of chemicals for precious metal plating.
1972 Feb.	Launch of soft gold plating chemicals for semiconductors.
1974 Apr.	Launch of hard gold plating chemicals for connectors and printed circuit boards.
1985 Sep.	Launch of palladium plating chemicals for connectors.
1999 Nov.	Implementation of MBO.
2001 Mar.	Launch of gold plating chemicals for flexible PCB with copper removal system.
2002 Dec.	JASDAQ market listing.
2003 May.	Launch of autocatalytic gold chemicals for high-speed MPU.
2004 Mar.	Listing on TSE Second Section.
2005 Mar.	Listing on TSE First Section.
2005 Apr.	Achievement of ISO 9001 and 14001 certification.
2005 Nov.	Start joint research with University of Tokyo and open analysis center in Wuxi.
2007 Mar.	Launch of immersion gold chemicals for mobile phone motherboards.
2008 Jul.	Launch of hard gold plating chemicals used for fine connectors.
2009 Apr.	Open a technology service office in Shenzhen.
2009 Oct.	Open a technology service office in Taipei.

Sales by End-Use Category

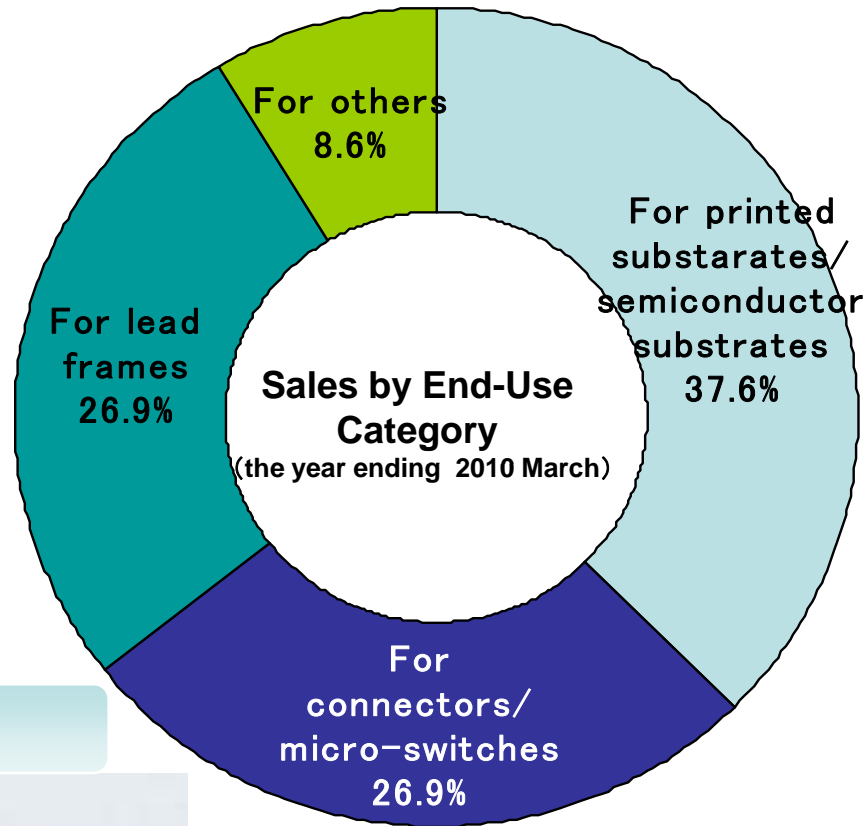
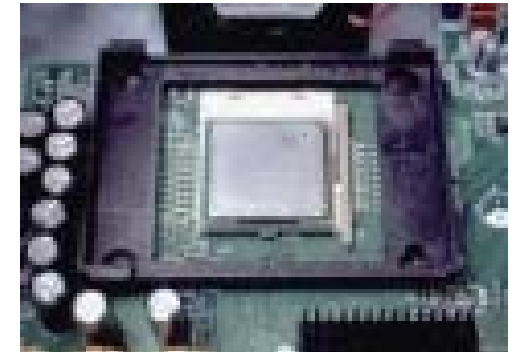
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Mobile Phone



Printed IC Substrate Package



Connector

