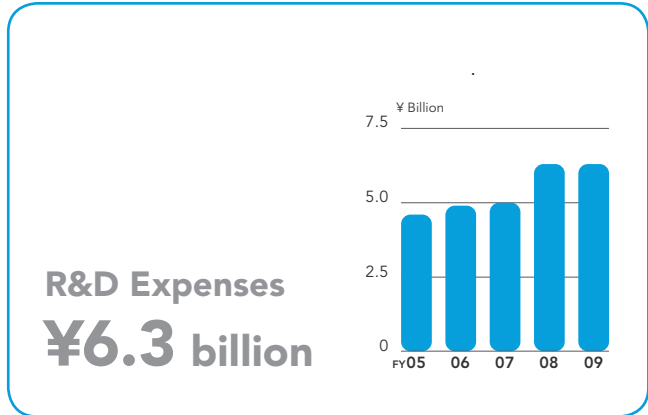


R&D Activities

As a technology-centered company, we realize that strengthening R&D capabilities is one of our most important strategies for achieving sustainable growth. Through original technological capabilities and research based on dialogues with markets, we are developing innovative products that generate demand, providing solutions, and accelerating the resolution of customers' technological issues.



Our Four Core Technologies

Pressure-sensitive adhesive applications

Through the development of adhesives and substrates and the combination of related technologies, we are expanding the range of fields in which the basic functions of adhesive products are utilized.

Material quality and functionality enhancement

Through the chemical and physical processing of paper, film, and adhesives, we are enhancing their characteristics and adding new functionality.

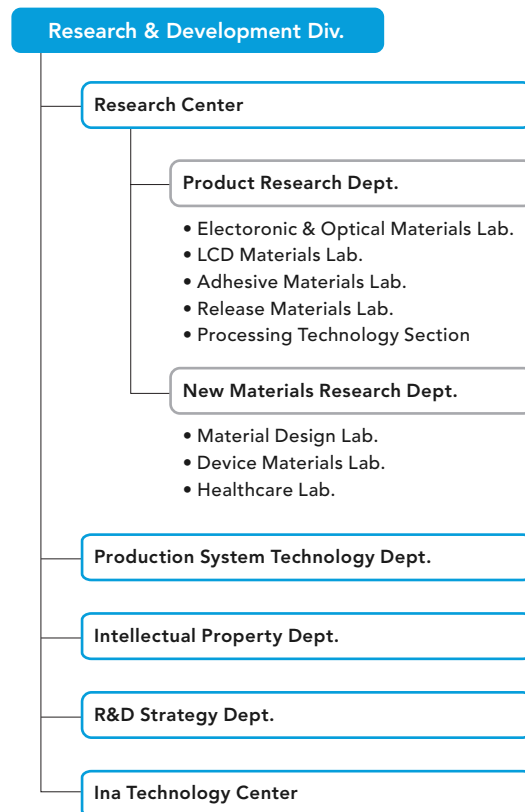
Specialty paper and composite material production

We use original papermaking technologies and coating, impregnation, and laminating technologies to develop specialty papers and high-value-added materials that transcend traditional concepts of paper.

System development

Through systematizing machinery and equipment and building high-level systems that draw on the distinctive characteristics of materials, we are providing advanced solutions.

Organizational Structure



Basic Policy

As a technology-centered company, developing innovative products that generate demand and offering solutions based on these products drives our growth. We have built our preeminent market position by advancing and linking individual technologies for pressure-sensitive adhesives and other areas to add further value to our sheet materials and increase their applications.

In the year ended March 31, 2009, continuing from the previous fiscal year, we developed technologies and new products based on our medium-to-long-term R&D plan. We pursued research that emphasizes customer needs and dialogues with markets, concentrating particularly on developing functional materials and related processing technologies. As result, the Lintec Group invested a total of ¥6.3 billion in R&D, practically unchanged year on year.

Organizational Structure and Facilities

Lintec's R&D function is focused in the Research Center within the Research & Development Division in Saitama Prefecture, which has approximately 200 research personnel. With a complete array of the very latest research equipment, pilot coaters, and clean-room facilities, the research center collaborates closely with production engineering divisions to develop a range of coating agents and other products. In April 2008, all of the laboratories were reorganized into the Product Research Department and the New Materials Research Department to strengthen our systems toward achieving the goals of timely R&D that meets the needs of the age and R&D for new products that will support Lintec's growth in the future.

Developing and producing a variety of equipment, our Ina Technology Center in Saitama Prefecture is working particularly hard to develop and strengthen semiconductor-related equipment and production systems. Moreover, the Group also has an R&D base in Boston, in the United States, which conducts research and development in such areas as industrial-use multilayer materials and coating technology.

Technological Foundations

We will combine our four core technologies of pressure-sensitive adhesive applications, material quality and functionality enhancement, specialty paper and composite material production, and system development to develop and supply highly distinctive products unlike anything else available in the market.

Supported by data that we have accumulated over many years of research, we develop and supply industry-leading adhesive-use technology and products. We also develop many types of devices for the application and removal of our products. This ability to provide total solutions is Lintec's major strength.

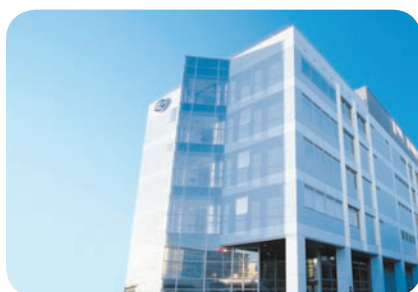
In order to further develop and expand our technological foundations, we are not only conducting in-Company R&D but also proactively initiating technological alliances with industry, government, and academia. Our goal is to develop new technologies and new products by integrating different technological areas. Through initiatives to develop materials and equipment, we intend to add further value to our sheet products and extend their range of applications.

Research Center

Researching and developing pressure-sensitive adhesive agents, release agents, precision coatings, etc.

Ina Technology Center (far right)

Developing and producing semiconductor-related equipment and adhesive related equipment



Examples of R&D Activities in the Fiscal Year under Review

Pressure-sensitive Adhesive-related Products

• Printing- and information-related products

Considering environmental protection, we developed label materials for tires using hot melt pressure-sensitive adhesives that do not use organic solvents in the manufacturing process. These materials maintain high adhesion even in low-temperature conditions and will firmly adhere to extremely bumpy surfaces, such as the surface of a studless tire.

• Commercial- and industrial-related products

We established mass production technologies for PV back-sheets and began production and shipments of this product. These backsheets are highly regarded, particularly in Europe and the United States, for their qualities that include excellent outdoor durability, resistance to moisture, and high dielectronic performance, and we have been constructing a product supply system to capture globally increasing demand.

• Electronics- and communication-related products

We have been developing adhesive tapes offering enhanced embedding functionality for the uneven surfaces of substrates and a pressurized curing system that enhances the tape's embedding functions. These developments are helping us to create new adhesive curing systems that can realize voidless interface adhesion, which not only helps to considerably improve the reliability of semiconductor packages but also contributes to increased

package density by stabilizing the adhesive layer formation and heightening dimensional precision.

• Electronic equipment-related products

We focused on developing application equipment to heighten efficiencies in semiconductor processes, such as when using wafer back grinding tape and wafer dicing tape in assembly. During the fiscal year, we concentrated our energies into developing equipment that would be compatible with the progress in ultra-thin silicon wafers and also with a number of different processes where advances are being made, such as chip mounting and packaging.

• Optical-related products

We have further evolved our innovative adhesives, which simultaneously realize outstanding durability and reworkability for the laminating of optically functional films, by enhancing their antistatic properties. As a result, these products are contributing to a diverse range of manufacturing processes.

• Healthcare-related products

Through an operational and technological tie-up with ASKA Pharmaceutical Co., Ltd., we have been jointly developing next-generation oral film formulations, evolving the basic technology for film pharmaceuticals that are easy to swallow without water because they become a jelly on contact with small amounts of saliva.

Paper-related products

We developed and launched Zipang, which features the appeal of gold in a paper base, and it is being used to give books and other products a powerful impact and sense of luxury.

Further, we developed organic release materials for pressure-sensitive adhesives that are used in flexible print circuit manufacturing processes and with various types of electronic components. Silicone, an inorganic material widely used as a release agent, is considered to be a primary cause of electronic equipment malfunctions. Therefore, we have been developing silicone-free materials for a number of applications.



Intellectual Property

We aim to increase corporate value by supplying original products developed through our continuous R&D efforts. These products constitute our intellectual property and are important management resources.

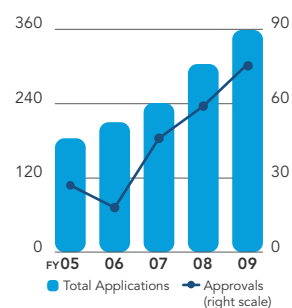
To protect these resources, we have established the Intellectual Property Department within the Research & Development Division. The department's fundamental functions are to support operational activities through patent applications and to build barriers to protect intellectual property.

The department works to increase the freedom of operational activities, minimize the risks accompanying operations, and increase motivation levels among technical staff. In addition to preparing and submitting patent applications, it monitors for infringement of rights and consults with researchers in the early stages of product development and also in the discovery stage at our R&D locations. In other words, the department is engaged in comprehensive and strategic activities to protect our intellectual property.

As well as increasing the number and quality of patent applications and rights acquisitions, we are working to supplement and rebuild our portfolio of patents for growth businesses and foundation businesses, to provide intellectual property support for operations shifting to overseas locations, and to train more employees with a view to advancing and accelerating development processes. Through those efforts, we aim to increase profitability based on our intellectual property.

Patent Applications and Approvals

Japan
76
approvals



Overseas
92
approvals

