Basic Policies on Intellectual Property

Toray Group has formulated and executes the following four intellectual property strategies as its basic policies on intellectual property.

1. Intellectual property strategies, as a part of the strategy trinity, that conform to management principles

Toray Group regards intellectual property as one of its vital management resources. We integrate our intellectual property strategies mutually and organically with our business strategies and R&D strategies, and as part of this “trinity,” we designate intellectual property strategies as one of the most important elements of our management strategies.

2. Promoting the procurement of rights

In order to protect Toray Group’s products and technologies and to ensure profits, we promote high-quality patent applications and patenting, and strive to build a strong patent network with deterrence capabilities. Regarding trademarks, we execute the acquisition of appropriate rights with an eye to improving brand value.

3. Respecting the rights of others

Toray operates a patent confirmation system to comprehensively investigate the relationship between its own products and technologies and patents owned by other companies to assure that there is no infringement upon the rights of other parties. We also check the relationship of our trademarks with those registered by other companies prior to use.

4. Rightful enforcement of our own rights

When Toray Group’s patent rights are infringed upon by another party, we take proper steps depending on the circumstances by exercising our patent rights, such as demanding that infringement cease, receiving monetary profits from licensing, and using our patent rights for cross-licensing with the patent rights of other parties.

Systems and initiatives for intellectual property strategy implementation

Toray Group implements intellectual property strategies in line with its basic policies through the following systems, initiatives, etc.

1. Patent responsibility structure, global patent strategy responsibility structure

Toray and its major group companies appoints patent managers for each product line and technology group and have established patent committees with the participation of members from the Intellectual Property Division, as well as research, R&D, and marketing and sales departments. Activities with regard to filing, patenting, defense, and exploitation of rights are promoted upon deliberation by the patent committees. In addition, the supervising executives in charge of technology and production in each business are appointed as global patent strategy chairperson to guide and supervise global intellectual property activities conducted by Toray and its Japanese and overseas group companies in each business.

2. Development and implementation of an IP action plan

Under the guidance of global patent strategy chairperson, each business formulates and carries out an “IP action plan” concerning important matters on intellectual property. Themes that should be given particular emphasis are selected as “Rank-A Projects” and focused upon for promotion. The status of implementation of the IP action plan is reported once a year to the Board of Directors.

3. Building barriers to other companies’ entry through intellectual property

Toray and its major domestic and overseas subsidiaries and affiliated companies are strategically using patent application and patenting as well as concealment of know-how to build strong barriers to entry by other companies.

4. Patent confirmation system

When manufacturing or selling new products, we ensure that the use, production, sale, etc. of our technologies and products do not infringe upon the patents, etc. of others.

5. IP landscape initiatives

In formulating IP strategies, we are taking action to explore ways to utilize our patents, and other initiatives, such as promoting the training of personnel (IP analysts, and others) who can exploit IP landscapes, developing research tools, and also analyzing the business environment and investigating new and relevant topics.
Assessing Toray’s intellectual property


The “2020 Ranking of Capability to Prevent Other Companies from Obtaining Patent Rights,” published annually by Patent Result Co., Ltd., is an advanced patent application index that compiles the number of patents by a company that were cited as reasons for rejection of another company’s patent application in the course of the patent deliberation process, in any particular year. Toray was ranked No. 1 in the fiber, paper and pulp category for the tenth consecutive year. As the same index benchmarks are used, if “fiber, paper and pulp,” and “chemicals” categories are treated as a single industry, Toray’s ranking becomes No. 3.

2. Patent Asset Index™ Assessments

LexisNexis® PatentSight® provides a Patent Asset Index™ (PAI) based on the technical and market value of patent families. The value of patents held by Toray Group assessed by PAI has been increasing year by year, as shown in the chart below. In order to obtain higher quality patents more efficiently, we carefully select domestic and foreign patent applications while placing focus on improving our practical IP skills, from specification drafting to patenting.

Toray intellectual property contributes solutions to global environmental issues

1. Carbon fiber composite materials

Toray Group is advancing the development of carbon fiber composite materials for mobility applications such as aircraft and automobiles. By reducing the weight of aircraft, automobiles, and other vehicles, fuel efficiency can be improved and emissions of CO₂, a greenhouse gas, can be curbed. Carbon fiber composite materials are also used in wind power generation blades, which are increasingly being developed and adopted.

The figure below maps the status of patents related to carbon fiber composite materials, with Toray Group patents indicated by red dots. From patents on carbon fibers and matrix resins, which are constituent materials, to patents on carbon fiber composite materials, it is well understood that Toray Group holds numerous patents in a wide range of fields, including for mobility and wind power generation applications.

2. NANOALLOY™

Toray Group is developing innovative materials by applying NANOALLOY™, a technology to precisely control the structure of polymer alloys, to achieve a balance between two contradictory properties, which is difficult to achieve with conventional materials.

Through materials utilizing NANOALLOY™ technology, we are proposing solutions to our customers and promoting the widespread development of materials, such as for impact-absorbing components for vehicles and parts for next-generation mobility.