

Relation between the Manufacturing Process of Adhesive Tapes and Environmental Impact

The Nitto Denko Group produces its products with materials such as base materials and adhesives as well as energy and water resources. We make all possible efforts to minimize the environmental impact generated from the processes. For example, in the manufacturing process of adhesive tapes, one of our representative products, organic solvents often play an important role when adhesives are applied to the base material. In addition, it is almost impossible to eliminate the generation of every edge part of a tape and defect from production activities. Under the circumstances, the group recovers wastes, waste heat and water, and organic solvents choosing the method based on their characteristics, and reuses them by material recycling*1 and thermal recycling*2 to save energy and reduce environmental impact.

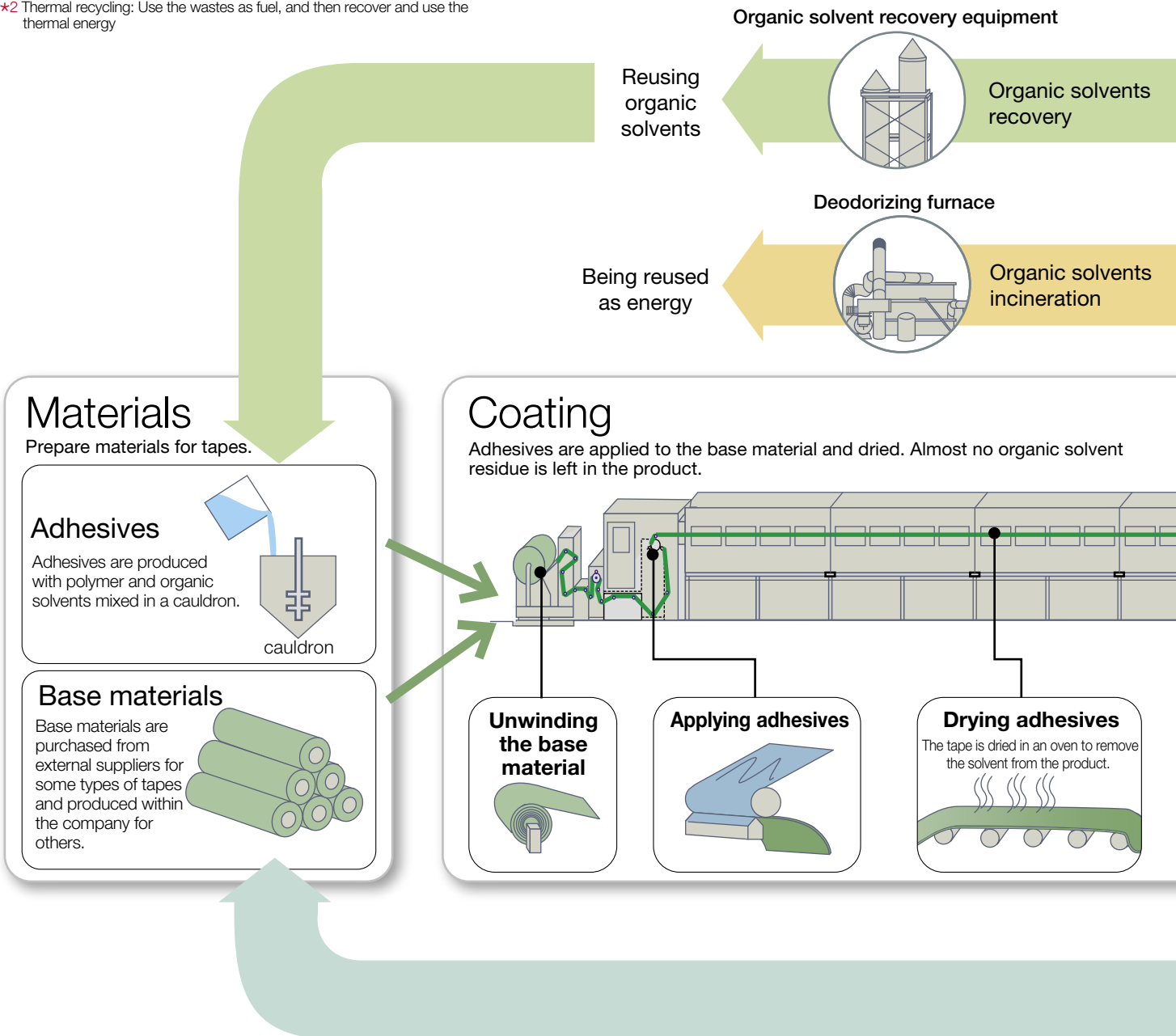
*1 Material recycling: Reuse the wastes as raw materials

*2 Thermal recycling: Use the wastes as fuel, and then recover and use the thermal energy

Environmental Voluntary Plan ①

Reducing industrial wastes P22

From the manufacturing processes, a wide variety of wastes are generated. Wastes from the Nitto Denko Group include the edge of tapes generated when cutting a tape, wastage of films as a result of changes in product types, scraps from the punching process, and defectives. The recycling ratio of Nitto Denko on a non-consolidated basis is as high as 98.6% as a result of efforts for material recycling, where wastes are treated and then reused as raw material, and thermal recycling, where thermal energy from incineration of wastes is utilized.



Environmental Voluntary Plan ②

Preventing global warming P23

To reduce emission of CO₂, one of the greenhouse gasses, Nitto Denko makes efforts for efficient use of energy, including installation of energy-saving facilities and co-generation systems, as well as converting fuels to ones with less environmental impact. CO₂ is also emitted even from deodorizing furnaces that treat organic solvents used and emitted at the manufacturing processes. All such furnaces are equipped with heat recovery systems to recycle thermal energy, reducing energy consumption in the process and thus preventing global warming.

Environmental Voluntary Plan ③

Preventing air pollution P24

Organic solvents which become one of the causes of air pollution if emitted into the air are rarely included in the products. But they play an important role in the process of producing adhesives. The Nitto Denko Group reuses the solvents as raw materials after treating them in the recovery equipment, or reuses them as thermal energy after incineration in the deodorizing furnaces. Furthermore, to reduce the total consumption of organic solvents, we have reviewed the total manufacturing processes and developed a product that does not require organic solvents in the manufacturing processes.

