TOPICS OF THE YEAR

Polyimide Belt Wins Nikkei Industrial Daily Awards for Superiority

Nitto Denko's polyimide belt received the prestigious Nikkei Industrial Daily Awards for Superiority for its outstanding heat resistance, mechanical strength, insulation performance and seamless design. This award is presented annually to new products and services of exceptional excellence by Nikkei Shinbun, Japan's leading and business and financial newspaper.

The polyimide belt represents the first application of high-durability polyimide to the color transfer belt at the heart of a color copying machine. Thanks to its uniform semi-conductive property, seamless structure and large size, the belt achieves improved color printing resolution and a 10-fold increase in copier printing speed over earlier types.

Polyimide belt

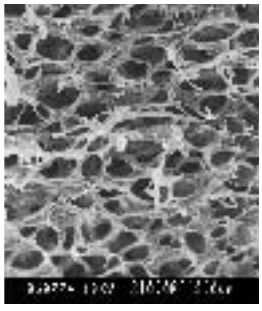
Series of Major New Products Marketed

◆ ***Ultra-thin multilayer fexible printed circuit (FPC)***

Responding to electronic equipment industry demands for smaller, lighter and thinner flexible printed circuits (FPCs), the Company developed an ultra-thin electronic component mounting board that allows lamination of up to 10 circuit wiring layers with a 50% reduction in both thickness and weight. Owing to its totally filmed surface, the FPC can accommodate complex circuitry at high density for optimum compactness. Applications are expected in electronic equipment requiring light weight and small size, and in semiconductor imposers.

◆ ***Porous polyimide circuit board material for high-frequency applications***

With the advent of the broadband era has come the need for rapid, high-volume data transfers, and the frequencies used in a wide range of electronic equipment are rising in proportion. The newly marketed porous polyimide substrate material is a polyimide resin evenly formed with a huge number of pores to make it ideal for circuit boards that handle high-frequency signals. The material more than matches the signal transfer performance of the current mainstream PTFE (polytetrafluoroethylene), while also offering excellent heat resistance, strength and formability.



Porous polyimide circuit board material (magnification)

◆ ***Wafer-shaped cleaner***

Nitto Denko developed and marketed the world's first wafer-shaped cleaner for removing dirt from the suction table of a wafer prober. The cleaner consists of a silicon wafer (dummy) with a synthetic resin sheet attached to its mirror surface. Dirt arising during upstream processes can be picked up and removed simply by pneumatically conveying the cleaner through the wafer prober. In addition to reducing wafer damage, the cleaner decreases wafer prober downtime because cleaning is possible without shutting down the equipment.