

## Reducing Packaging Materials and the Consumption of Energy in Physical Distribution

Murata is seeking to reduce the environmental burden of distribution and packaging materials in order to reduce the environmental burden at the time of product shipment.

### Reducing Packaging Materials

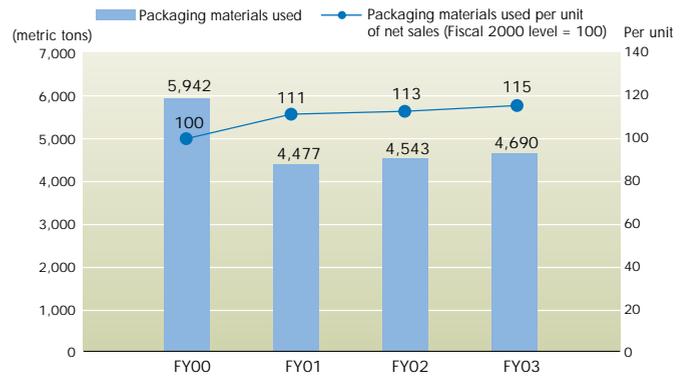
To date, we have switched our chip component packaging method to bulk cases; reduced the number of cardboard boxes used by switching to larger cardboard boxes for tape-packaged products; reused taping reels; and reused the aggregate cases used for delivery to customers.

Going forward, we will review the targets listed below and continue to strengthen our initiatives.

- Promoting the bulk packaging of chip components  
The packaging used for chip components comprises mainly tape and reels. However, by switching to bulk packaging, which avoids the use of either tape or reels, we have simplified the packaging.
- Promoting the reuse of packaging materials  
We will be extending the reuse of packaging materials beyond those currently being reused (taping reels and bulk cases).

We plan to reduce the amount of packaging materials used per unit of net sales by 5% by fiscal 2006 and by 20% by fiscal 2010 compared to fiscal 2000 levels.

#### Amount of Packaging Materials Used (in Japan)



Details of the bulk case  
Bulk case dimensions: 110 x 36 x 12 mm (L x W x H)

### Reducing Energy Consumed during Distribution

In order to reduce the CO<sub>2</sub> emitted during the transportation and delivery of Murata products, we have been incorporating various measures intended to reduce the fuel consumption of trucks.

- Implementation of energy-efficient driving methods such as limited idling and low-rpm upshifting
- Review of transportation routes to minimize the transportation distance
- Implementation of modal shift from trucks to railways etc.

In order to further reduce CO<sub>2</sub> emissions, we intend to introduce the following measures and further strengthen our initiatives.

- Improvement of loading efficiency along with a review of transportation routes and vehicle type
- Continuation and extension of energy-efficient driving methods
- Expansion of the modal shift from trucks to railways
- Expanded introduction of natural gas vehicles

Our goal is to reduce CO<sub>2</sub> emissions per unit of net sales by 5% by fiscal 2006 and by 20% by fiscal 2010 compared to fiscal 2000 levels.

#### CO<sub>2</sub> Emissions from Distribution (in Japan)

