

TOTO Receives a WorldStar Award at World Packaging Organisation's WorldStar 2025 Competition (in 2024)

- **General-purpose soft-touch corrugated cardboard cushioning material that achieves high shock absorption with low material and labor costs**

TOTO LTD. (Headquartered in Kitakyushu City, Fukuoka Prefecture; President: Noriaki Kiyota) has received the WorldStar award for its general-purpose soft-touch corrugated cardboard cushioning material that achieves high shock absorption with low material and labor costs—a cushioning material used as packaging for its WASHLET*¹ products—at the WorldStar 2025 Competition held by the World Packaging Organisation (WPO). TOTO has received awards at packaging competitions in Japan and other countries since 2000. The WorldStar award is the 13th award we have received in total.

The WorldStar Competition is a world authority packaging competition collecting superior products that have received global recognition and attention. Its goal is to make excellent packages and packaging technologies ubiquitous while encouraging competition in terms of protectiveness, preservability, usability, environmental friendliness, local adaptability and other features.

TOTO designs packages internally, aiming to achieve high package quality while using fewer resources. To contribute to achieving the TOTO WILL 2030 shared value creation strategy, which aims to establish a sustainable society and clean, comfortable and healthy lifestyles by 2030, TOTO will continue to pursue better packaging that reduces the amount of resources used and the labor required.

About the award-winning packaging

- **General-purpose soft-touch corrugated cardboard cushioning material that achieves high shock absorption with low material and labor costs**

General-purpose soft-touch corrugated cardboard cushioning material that achieves high shock absorption with low material and labor costs is a cushioning material used as packaging for WASHLETs. By extracting the strongest part of the cardboard and making the structure simpler, TOTO was able to reduce the amount of material used and reduce the number of working hours required to produce it. In addition, by giving the cushioning material a wave-like shape and stacking the layers in an alternating pattern, it is possible to combine flexibility with strength.



*1: WASHLET is a registered trademark of TOTO LTD.

Features of general-purpose soft-touch corrugated cardboard cushioning material

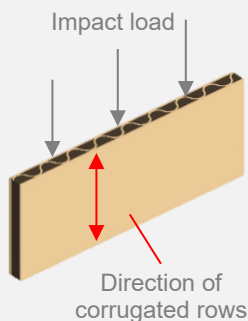
As the use of WASHLET products becomes more widespread overseas, opportunities for cargo handling*2 will increase, and so too will the possibility of damage. The challenge was to create a low-cost cushioning material that can withstand harsher transportation conditions.

To solve this issue, TOTO extracted the strongest part of the cardboard and stacked four sheets in the direction of the corrugated rows of the cardboard to make it stable and self-supporting, reducing the amount of material used and the number of work-hours required by simplifying the complex assembly process. By making the ends of the corrugated cardboard layers wavy and overlapping them in an alternating pattern, TOTO has also made it easier to collapse the layers intentionally, without making them too stiff. This made it possible to first receive shocks softly, and then all the layers of the cardboard to firmly cushion the packaged item. It is a highly versatile cushioning material that can be used in a variety of ways, depending on the position where the cushioning material is placed, and differences in the material used and size, etc.

*2: Loading and unloading cargo from ships and freight vehicles

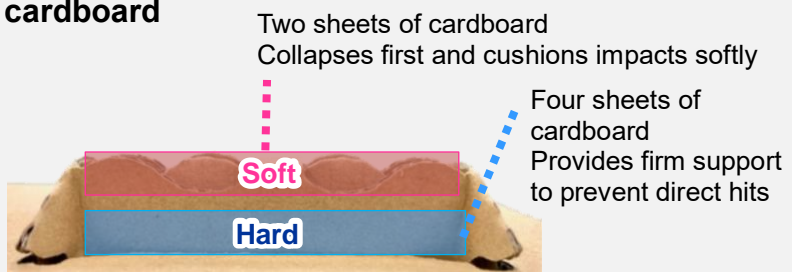


Idea (1): Direction of layering cardboard



By extracting the strongest part of cardboard and stacking multiple sheets in the direction of the corrugated rows of the cardboard, TOTO has made the material stable and self-supporting.

Idea (2): Wave-like shape of cardboard



By making the ends of two of the four sheets of corrugated cardboard layers wavy and overlapping them in an alternating pattern, TOTO has also made it easier to collapse the layers intentionally. This enables the ends of the two sheets to which the impact is applied to receive the product softly, and then all four overlapping layers to firmly cushion the packaged item.

New Shared Value Creation Strategy TOTO WILL2030

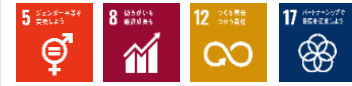
Cleanliness and Comfort; Wellness



Environment



Relationships



The New Shared Value Creation Strategy, TOTO WILL 2030, will simultaneously realize environmental, social and economic value. In it, we have established the materiality issues of cleanliness and comfort, the environment and relationships, that we will work on to integrate management and CSR and contribute to the achievement of the United Nations' Sustainable Development Goals (SDGs).

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