

## TOTO Receives Two WorldStar Awards at World Packaging Organisation's WorldStar 2024 Competition (in 2023)

- Easy installation packaging
- Packaging for artificial marble counters with shock absorption function

TOTO LTD. (Headquarters: Kitakyushu, Fukuoka Prefecture; President: Noriaki Kiyota) **has been awarded two WorldStar Awards at the WorldStar 2024 competition—hosted by the World Packaging Organisation (WPO)—for its "Easy installation packaging," a cardboard packaging material for TOTO's wall-hung SMART TOILET "NEOREST WX", and its "Packaging for artificial marble counters with shock absorption function," a packaging material for artificial marble counters used in public toilets and other washroom spaces (available in Japan).** TOTO has received awards at packaging competitions in Japan and other countries since 2000. **The WorldStar award is the 12th award** we have received in total.

The World Star Competition is an international packaging competition collecting superior products that have received global recognition and attention. Its goal is to develop and ubiquities excellent packages and packaging technologies 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. Under the new shared value creation strategy TOTO WILL 2030, which aims to establish a sustainable society and clean, comfortable and healthy lifestyles by 2030, we will continue to pursue appropriate packaging that reduces the amount of resources used and the labor required.

### About the award-winning packaging

#### ■ Easy installation packaging

"Easy installation packaging" is a packaging material that assists in the installation of wall-hung SMART TOILET "NEOREST WX". **In facilitate easier installation, the packaging features an installation assist feature that makes it easy to position and fix the toilet bowl in place.** It also has a **stable structure that improves compressive strength.**



#### ■ Packaging for artificial marble counters with shock absorption function

"Packaging for artificial marble counters with shock absorption function" is a packaging material (or "support base") which has the function of holding and stabilizing Marbright artificial marble counters used in public toilets and other washroom spaces. **The support base has been improved to improve shock absorption and suppress shocks to counters during transport even more than before.**



## Features of easy installation packaging

NEOREST WX is large and heavy, and posed several challenges due to the characteristic features of its design. (1) The bottom of the toilet bowl is round and cannot stand independently, and the upper surface of the toilet bowl is sloped from front to back, so the ceramic could not be subjected to compressive load during storage. (2) Since the bottom of the toilet bowl is round and cannot stand independently, it is also necessary to ensure stability during transportation. (3) The side of the toilet bowl has a flat shape, making it difficult to hold during installation. The purpose of this packaging material design was to solve these problems.



NEOREST WX exterior view

### Challenge (1) Measures to improve compressive strength

Due to the characteristics of its shape, the ceramic surface of NEOREST WX cannot be subjected to compressive loads from the vertical direction. The number of folds in the packaging material at the front and rear of the product was therefore increased to improve strength against compressive loads. As a result, compressive strength has been improved to prevent the box for collapsing.



### Challenge (2) Stability and dispersion of concentrated stress

Because the toilet bowl has round edges, the shape of the part that supports the product was designed to improve sideways toppling for improve stability. (Figure 1)

The part that supports the rear side of the product is formed into an oblique shape, for a structure that distributes the weight of the toilet bowl throughout the entire packaging, and avoids concentration of stress (to prevent the bottom from falling out). (Figure 2)

In addition, double cross-shaped partitions extended to the end of the bottom edge to support the toilet bowl, creating a structure that distributes the weight of the toilet as much as possible. (Figure 3)



Figure 1  
\* Front side of the product



Figure 2  
\* Rear side of the product



Figure 3

### Challenge (3) Improving ease of installation

Since there is nowhere for installers to put their hands to lift the toilet bowl during installation, the packaging also incorporates an installation assist function that can be used to position the toilet bowl while it is still mounted on the packaging material. As a result, the mounting position of the toilet bowl is decided simply by sliding it to the wall. This structure makes it easy to install even NEOREST WX, which is difficult to lift.



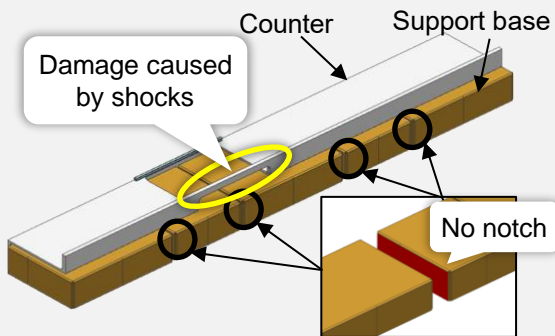
## Features of packaging for artificial marble counters with shock absorption

Counters used in public toilets and other washroom spaces are heavy and made from brittle materials. If external shocks are transmitted directly to the counters during transportation, then even small impacts can easily cause damage.

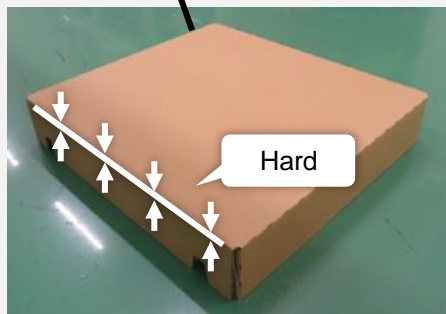
To solve this issue, a triangular notch was applied to the connecting surface of the support base. As a result, there are no hard parts on the connecting surface, and shocks can be absorbed by the packaging box.



### Before improvement

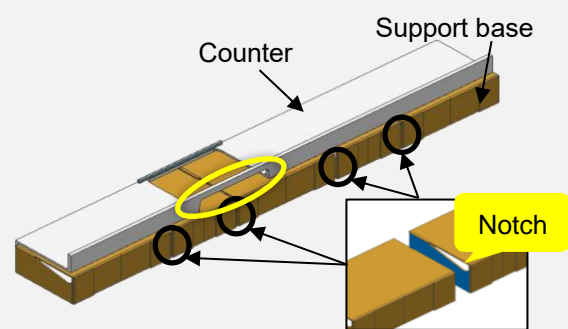


\* With a long counter

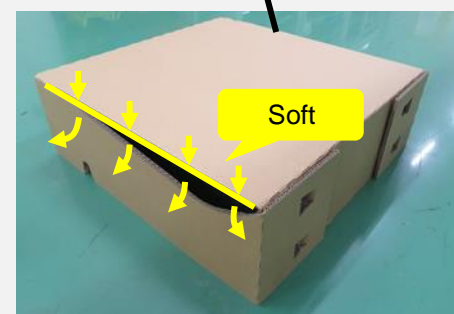
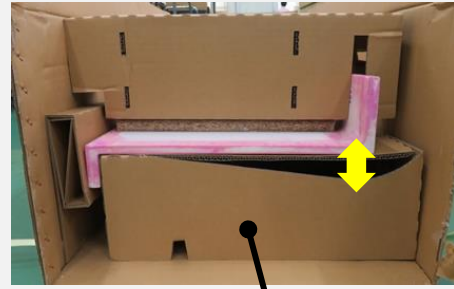


When the support base is used in a row of 2–5 units, the cardboard on the connecting surface is hard, and damage will occur as a result of shocks.

### After improvement



\* With a long counter



Even when the support base is used in a row of 2–5 units, there is a notch on the connecting surface, offering shock absorption even for longer products.

## New Shared Value Creation Strategy TOTO WILL2030

### Cleanliness and Comfort



### The 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).

<https://jp.toto.com/company/profile/philosophy/managementplan>