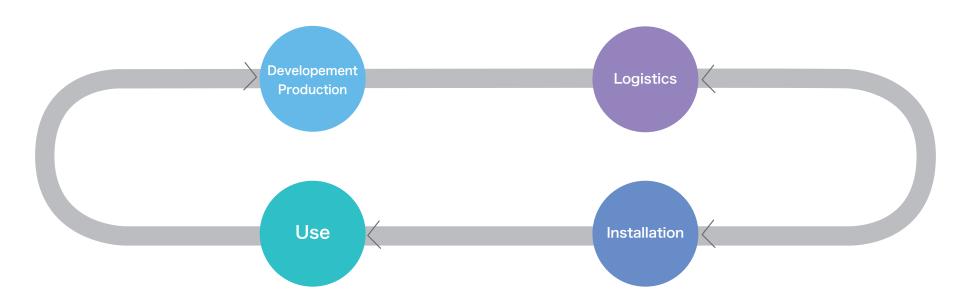


# Approach for environment through floor material

# We develope our technology and contribute to the realization of sound material-cycle society

In various aspects of our corporate activities, we are constantly developing our technologies and making efforts toward the realization of a sound material-cycle society. Here we present some of our concrete approach from development stage of products and installation methods to production, logistics, installation, use, disposal and reuse. We believe that it is our major mission to respond to the realization of the sound material-cycle society.







# Suppressing generation of waste material during production

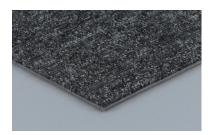
We try to reduce waste material generated during production to zero.

Development of the flooring material and installation method considering loose lay tile and recycling system.

The example of achievement is material and structure of LAY FLAT TILE and Carpet Tile which are stable even on loose lay installation.



LAY FLAT TILE



Carpet tile

Vinyl film for agriculture and gardening are reused for floor material prodcution.

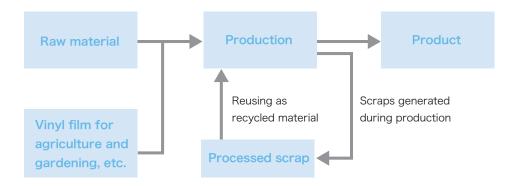
We were the first in Japan to develop technologies of the processes required for this recycling such as collection, sorting, cleaning, crushing, and granulation, and we have been excuting this since 1974.



Saitama Factory, Saitama 2nd Factory

# In-house recycling of vinyl floor material

At the various vinyl flooring procution facilities of our own, all processed scraps are recycled into flooring material. Even between remote factories, we have established system through whic recycled materials are transfered and in the end waste are not generated.







# Suppressing generation of waste material during production

We try to reduce waste material generated during production to zero.

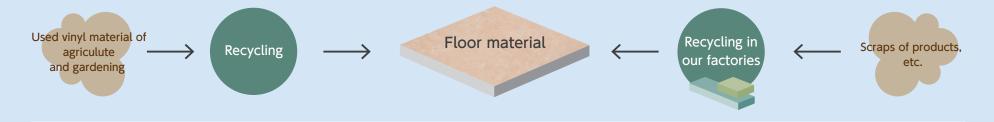
## [Recycling cycle]

We have been using recycled materials for a long time, and based on our in-house circulation model. we have achieved high material recycling rate.

#### Transforming to beautiful flooring material

For our vinyl floor material, used vinyl film for agriculture and gardening and recycled material in factories are used. We have been reduccing usage rate of new raw materials and environmental load, and recycled material are turned into beautiful floor material going through various processes.







### Compliant with Green Purchasing Law

From the Ministry of the Environment, "Act on Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities". The mark on the left is displayed on products that comply with the Green Purchasing Law.



#### Eco Mark

Obtained the Eco Mark from the Eco Mark Secretariat of the Japan Environment Association.





# Suppressing generation of waste material during production

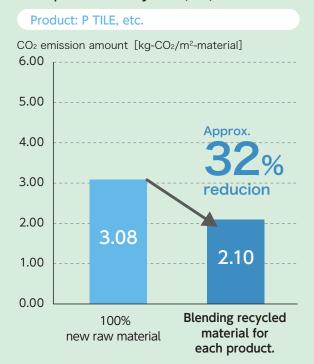
We try to reduce waste material generated during production to zero.

## [We contribute to CO2 reduction by using recycled material]

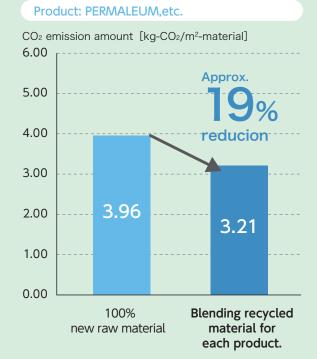
We have been contributing to CO<sub>2</sub> reduction by blending recycled materials with raw materials.

Below charts show comparision of each product, between using 100% new raw material and blending recycled material for each product.

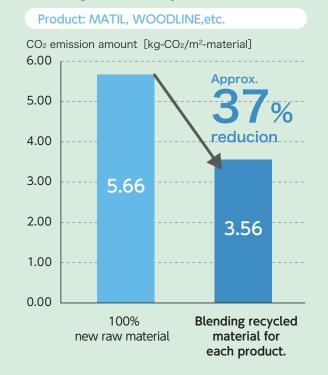
#### Composition vinyl tile(KT)



## Heterogeneous vinyl sheet(FS)



#### Heterogeneous vinyl tile(FT)





# Consideration of delivery method by simple packaging

We are considering to introduce delivery method of material and product in simple packaging prioritizing quality assurance.





# Collection and reuse of scraps during installation

Installation scraps and surplus materials for vinyl floor material generated at installation sites are collected by the entity approved of the Minister of the Environment under the Ministry of the Environment's wide area certification system (special provision based on Article 15-4-3 of the Abolition Law)



FI ATTFR

## Use of packaging materials to reduce waste

We have changed wrapping paper to the one made of reusable material and been promoting its recycling. Also, a recyclable plastic container (R pack) is used for subfloor repair agent and subfloor surface reinforcing agent.



[Waste paper collection flow by a specialized company]

[R pack collection flow by a specialized company]

Use

# Proposal and product development of products with longer life

We have been developing and providing the products that can be used for a long time in response to requirement for longevity of construction material.





**TOUGH ZONE** 

**DOLCE** 

## Promote elimination and substitution of harmful substances

WE don't use use formaldehyde as material for all of our products such as floor materials nor adhesives at all. In addition, we have abolished toluene and xylene, been proceeding with detoxification and solvent-free of adhesives, and provided low VOC products. We also provide vinyl floor materials that greatly reduce volatilization of plasticizers. And we also provide flooring material that is made of natural raw materials(linoleum).



AC FLOOR



MARMOLEUM