### **GENERATION TO THE NEXT**

 $\mathsf{GENN}^\mathsf{m}$  is an innovative brand of soles made by foaming natural rubber.

previously been thought to be difficult.
This is different to organic soles which sacrifice comfort and EVA soles where the environmental impact needs to be considered during the production process.
You will understand once you get your hands on one of our soles. We are at a huge

crossroads as generations are changing.









# Around the world, about 24.2 billion shoes \*\* are produced annually.

Used shoes that are no longer worn mainly follow one of two paths.

# 1. Recycling (5-10%) \*2

While raw materials are processed for regeneration etc., this requires inefficient work and complex transportation due to the complicated structure of shoes. As a result, according to many people, recycling creates other problems such as the emission of unnecessary greenhouse gases etc.

# 2. Disposal (90-95%) \*2

Of all shoes disposed of, 10% are incinerated. However, the other 90% cannot be incinerated and are instead added to landfill.

Most of them are exported to South East Asian countries where they are then disposed of, which has developed into an international issue.

[ Production ]
About
24.2
billion shoes
annually

About
21.7-23.0

billion shoes
annually

90-95%

[ Reclamation ]

About

19.5-20.7

billion shoes annually

90%

[ Recycling ]

About

1.2-2.4

billion shoes annually

[Incineration]

About

2.2-2.3

billion shoes annually

10%

# Their complicated structure means that shoes will remain underground forever without being properly disposed of

Nowadays, petroleum-based materials such as EVA. synthetic rubber, PU and PCV are used for many shoes with a complicated structure to improve functionality.

Petroleum-based materials are said to remain underground as they are for as long as 100 years without decomposing as their biodegradability in a landfill is very low. \*2 They emit volatile organic compounds (VOC) and greenhouse gases from underground which are said to contribute to a hotbed of health issues and global warming.

They also have an effect on ocean pollution due to the discharge of waste and contaminants from a landfill disposal site into a river. which then ends up in the ocean.

According to "Plastic Waste Poisons Indonesia's Food Chain", a study on waste issues and food contamination in a South East Asian country in 2019, it was reported that about 70 times more dioxin than the European food safety standard was detected in eggs collected from a village near a landfill. \*3



### **STORY**

# Unique natural rubber foaming technology using natural science\*

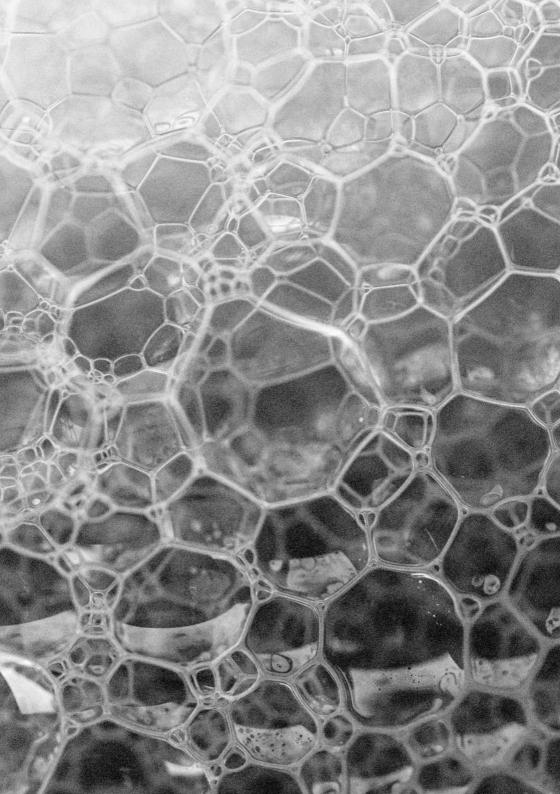
This is internationally patented technology that no one has ever used before, creating foaming materials by using 100% naturally-derived materials of which natural rubber is a major component.

It is also a next-generation natural material that has improved upon not only the functionality of traditional natural rubber but also maintains attributes of petroleum-based materials such as being lightweight.

It is also harmless to the lives of human beings and animals, as well as the planet.

The era of sacrificing the natural environment for human comfort has come to an end.

What we need from now on are materials which are not only friendly to humans but also the planet as well. The environment around us is about to see a big turning point.







### **BRAND**



RETURN TO THE ORIGIN

GENN $^{\text{m}}$  is an innovative brand of sole that is produced by foaming natural rubber, which has been said to be difficult to do, and can be returned to the soil.

The sole is the part of a shoe that has the biggest impact on the environment in return for the comfort and functionality of our shoes. Choosing GENN™ soles born from natural science technology enables one to contribute to the future of our planet while still having the same functionality and comfort in their lives.

Our soles are different to organic soles which sacrifice comfort and EVA soles where the environmental burden is considered during the production process. You will understand once you get your hands on one.

This is a big turning point in the change of generations. It's our generation's job to make a change.





TURN THE ORIGIN. GRADABLE

# The world's only air-rubber-sole which returns to the soil

The unique foamed rubber sole by GENN™ is made from natural rubber and contains no harmful substances. As it is made from 100% natural materials, there is a high percentage of biodegradability even though it is considered to be non-combustible waste, and it can return to the soil even after being buried in the ground.

"It is harmless to the lives of human beings, animals, and the planet."

Natural rubber which is made from the sap of naturally-grown rubber trees is a material that can be adapted to deal with environmental problems and this is a new technology which will substantially alter the challenges that we are experiencing on our planet.

In addition, our unique foaming technology brought about variety of functions that a sole is expected to have. Not only we succeeded in producing ultra-lightweight natural rubber but also acquired other functionality at a higher level. It is also an innovative sole which lives in harmony with nature and solves all the problems of traditional natural rubber such as weight/wear resistance/ heat resistance/ adhesiveness and so on.

# An innovative production process



Step. 1

# **Rubber trees**

Latex is extracted from rubber trees grown in Indonesia and Thailand



Step. 2

# Washing with water & natural drying

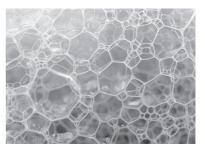
Coagulated latex is crushed, washed using water, naturally dried and pressformed into block-shaped crude rubber.



Step. 3

# **Pelletizing**

Natural minerals and the formed blockshaped crude rubber are mixed to make beaded small pellets.



Step. 4

# **Science**

The pellets are then foamed under special conditions.

This process is incredibly magical!

# Main properties of the sole from GENN™





Property No. 4

# Wear resistant

They have high wear resistance for a longer lasting shoe. [Compared with rubber soles] 6 times more wear resistance [Compared with EVA soles] 2.6 times more wear resistance



Property No. 5

# Cushioning

Highly cushioned and shock-absorbing. Lessen the burden during walks.

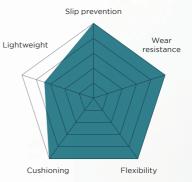
# **Flexibility**

As the soles are flexible, they can adapt to various postures. They are also bend resistant.

# Sole functionality comparison by material

\* Original research results from GENN™

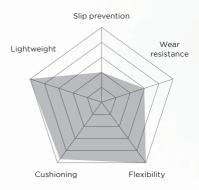
# **GENN™** soles



+ biodegradability

# Ordinary rubber soles Ordinary EVA soles









# Two choices available from GENN™

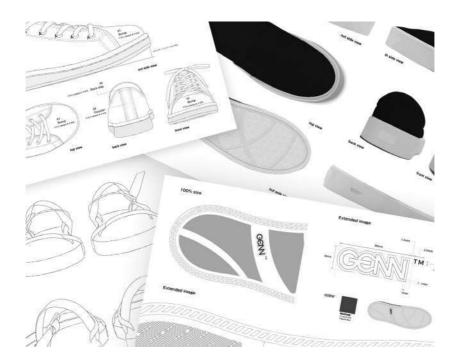


Option 1

# **Open Mold Soles**

We offer innovative open mold soles that were created using special foamed technology. GENN $^{\text{\tiny M}}$  soles are created using a highly universal design, and one can choose from various function and design options.

# Two choices available from GENN™



Option 2

# **Order-made Soles**

We also have order-made soles on which detailed shapes and designs can be reproduced for brands who wish to stick to more specific expression. One can enjoy the full range of possibilities our innovative material has to offer by choosing how the sole functions as well as its design.



### **MISSION**

# **Re-GENERATION PROJECTS**

# To leave behind a world abundant with nature for our future children

The fashion industry has too many problems such as with climate change, biodiversity, marine protection and labor issues. On top of this, there are also problems such as land reclamation disposal issues, health issues, damage to crops and disruption of rivers and ecosystems all over the world.

 $\mathsf{GENN}^{\mathsf{TM}}$  will make every effort to solve these problems that the fashion industry has through our biodegradable products.

# **MISSION**

# **Re-GENERATION PROJECTS**

# Self-sufficiency on a local level

- creation of local employment and establishment of educational institutions -



We offer innovative open mold soles that were created using special foamed technology. GENN™ soles are created using a highly universal design, and one can choose from various function and design options.

# **MISSION**

# **Re-GENERATION PROJECTS**

# Improving the global environment



The fashion industry, which includes the shoe industry, is said to be the world's second most harmful industry to the environment. We will make efforts to improve the global environment in cooperation with third-party institutions according to our mission "to leave behind a world abundant with nature for our future children".

We will do what we can from our generation to the next aiming to create a world where our children and children around the world can walk alongside healthy and abundant nature.

# WE WILL DO WHAT WE CAN DO FROM OUR GENERATIONS TO THE NEXT

# **GENN™ PROJECT**

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