

June 12, 2020

TBM and Bioworks announce Bio Face Lite™, an affordable version of Bio Face™, the world's first¹ reusable face mask knitted from PLA yarn **- Environmental-friendly and affordable, ready for pre-order worldwide -**

- A Bio Face Lite™ mask uses **over 90%²** less fossil fuel-based plastic compared to a typical disposable mask, since it is washable and reusable for 30 times³ and mostly made of PLA (polylactic acid), which is biomass-based.
- Also, when burned, Bio Face Lite™ mask **emits less CO2** compared to disposable masks since PLA is considered as carbon neutral.
- TBM and Bioworks aim to minimize explosive consumption of single-use plastic which resulted from tremendous disposable mask demand due to ongoing coronavirus pandemic.
- Our current suggested retail price is **US\$ 3.99**, an affordable price compared to that of disposable masks (if one disposable mask, US\$0.20-1.00 per piece depending on area, is used per day for 30 days).
- TBM and Bioworks will continue to deploy new products: Bio Face™ and Bio Face Lite™ with **cool feeling fabric** is scheduled to be launched for this summer.
- If interested, please contact Tomoya Nakamura (contact@tb-m.com) at TBM.

Tokyo, June 12, 2020 - TBM and Bioworks are pleased to announce that Bio Face Lite™ is now ready for pre-ordering from worldwide locations. Bio Face Lite™ is knitted with biomass-based PLA (polylactic acid) yarn and could be washed and reused for around 30 times. Bio Face Lite™ is affordable compared with 30 pieces of disposable mask that is priced around US\$0.20 – US\$1.00 per piece depending on the regions.

“Did you know disposable masks are made of petroleum-based plastic? Despite the global mega trend to turn away from single use plastics, use of disposable masks has tremendously increased due to the current coronavirus pandemic. However, such use will result in increased single use plastic waste.” said Nobuyoshi Yamasaki, CEO of TBM. “We believe that instead of disposable masks, more reusable, environment-friendly masks will become the standard in the market going forward.”



¹ Based on Bioworks research.

² Assumption: A disposable mask is estimated to use 60 grams of fossil fuel-based plastic per piece (weight 2 grams per piece, 100% fossil fuel based, 30 pieces used for 30 days). A Bio Face Lite mask is estimated to use 4 grams of fossil fuel-based plastic per piece (weight 20 grams per piece, 20% fossil fuel based, one piece used for 30 days).

³ Based on Bioworks research.

■ Features of Bio Face Lite™

Knitted from antibacterial and mildly acidic (close to human skin) yarn

Bio Face Lite™ is knitted from polylactic acid (PLA) yarn, which contains mildly acidic (close to human skin) and antibacterial properties based on a Japanese test lab report⁴. PLA is used as coatings for surgical suture as it is decomposed and safely absorbed by the human body.

Washable and reusable

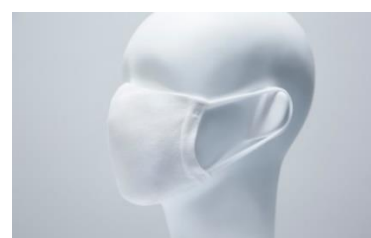
Bio Face Lite™ can be washed and used repeatedly. It could be washed for 30 times, which could lead to reduction of mask waste.

Cost-efficient

We have achieved affordable price for Bio Face Lite™ by improving production efficiency. Bio Face Lite™ is cost competitive compared to using 30 pieces of disposable masks.

Pocket for virus filter

Bio Face Lite™ can be equipped with commercially available virus filters, cotton gauze and similar accessories.



■ Bio Face Lite™ Details

Material	PLA (polylactic acid). For ear loop and pocket, polyurethane and nylon are partially used
Sizes	S (for children), M and L
Suggested Retail Price	US\$ 3.99 / 1 mask (not including VAT) * Discount prices will be offered for bulk orders from corporate customers
Usage	NOT for medical use or surgical use For general use (in office, shopping, public transportation etc.)
Production Country	Japan and Asia
Color	White or Gray
Production capacity	Plan to secure more than 300,000 masks by July and 1 million masks by August

* Bio Face Lite™ does not block the intrusion of virus airborne droplets and pollen in the air.

* It is recommended to install a commercially available virus reduction filter to block the intrusion of viruses and pollen.

* Antibacterial means "to suppress bacterial growth on the surface of the product," and does not mean to kill or decontaminate the bacteria.

* Washing by hand is recommended when washing the mask. If washed by washing machine, please put the mask in a laundry net.

* Please note that the product shape may change if the mask is washed with a washing machine.

⁴ TBM and Bioworks had requested and obtained a report on pH and antibacterial properties of Bio Face™ from Nissenken Quality Evaluation Center in Japan.

PRESS RELEASE



* Please do not use dryers, bleach nor softener. Please use a neutral detergent. Please do not expose the mask to direct sunlight when drying.

* We do not accept return or exchange after purchase.

■ Order / Contact Information

For Purchase, please contact via contact form. <https://tb-m.com/en/contact/>

■ About PLA

PLA (Polylactic Acid) has been approved safe to be used for food contacting packaging etc. in the USA, Europe and Japan. It is a biomass-based plastic made from a biomass resource such as corn starch, and emits less CO₂ compared to traditional fossil fuel-based plastic when burned (based on calculations from their chemical structure), and biodegrades in industrial compost environments. PLA hardly degrades in normal environment and therefore can be used for a long period of time.

About TBM Co., Ltd.

TBM is a company based in Japan specializing in developing, manufacturing and distributing LIMEX[®], an innovative new material mainly made from limestone and inorganic materials. LIMEX[®] is a material that can become an alternative of paper and plastic. By delivering recyclable LIMEX[®] worldwide, TBM aims to contribute to solving marine plastic pollution, resource depletion and many other environmental problems that the world is facing. In 2019, TBM was evaluated as the second largest unicorn company in Japan.

<https://tb-m.com/en/limex/>

About Bioworks Corporation

Bioworks is a subsidiary of TBM, based in Japan. Bioworks specializes in developing, manufacturing and distributing Plax[®], a 100% biomass-based bioplastic. Plax[®] is highly functional in aspects such as heat resistance, impact resistance and flexibility.

<https://bioworks.co.jp/en/>

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