

TBM is considering a biodegradable LIMEX

"LIMEX" is new material developed by TBM Co., Ltd. ("TBM") which are mainly made of limestone and turned into alternatives of paper and plastic without using almost any water nor wood pulp. TBM is now planning to release a biodegradable LIMEX at home and abroad.



■ Outline

These days more and more countries have been banning the use of plastic bags, single-use boxes and dishes. Microplastic pollution in the ocean led EU Commission to adopt Europe-wide strategy to tackle plastic issues this January. By 2030 EU aims to achieve the society where single-use plastic packages will no longer be used in EU and people recycle all of the plastic materials. This movements led by EU Commission had great impact on the world demands for biodegradable materials and plastic alternatives.

TBM has been strengthening the partnership with the leading companies to put LIMEX into practical use since TBM established its first plant of LIMEX. As of today, LIMEX is made mainly from limestone and partly from Polyolefin resin. In order to meet the demands for eco-friendly materials and to contribute to solving micro-plastic pollutions, TBM is currently developing biodegradable LIMEX, totally made from bio-based resin, 100% biodegradable materials. On 23rd May this year at 'Brussels SDG Summit 2018*1' (held by CSR Europe with 'European Business Summit'), TBM will introduce a sample of 'biodegradable LIMEX*2'.

*1 Brussels SDG Summit 2018 is held by CSR Europe where the experts, practitioners and policymakers will discuss SDGs related challenges and elaborate possible collaborative actions. This Summit is held on May 23rd in 2018.

URL : <https://www.brusselssdgsummit.org>

*2 The biodegradable LIMEX is manufactured in cooperation with Toppan Printing Co., Ltd.

■ The introduction of new material, LIMEX

- LIMEX, invented in Japan, is composite materials, the inorganic fillers in dispersed phase. More than 50% of it is made from calcium carbonate.
- In 2013, METI(Ministry of Economy, Trade and Industry), gave TBM a subsidy, expecting TBM's contributions to restoration from Great East Japan earthquake (March 11, 2011) and economic growth of Japan. The subsidy is for advanced technology demonstration and evaluation facility development."
- In 2014, Patent was approved in more than 20 countries, Japan, China, the US, EU countries and so on.
- In 2015, Construction of Shiroishi Plant was completed. (Shiroishi city, Miyagi) with the capacity of 6,000t of LIMEX annually.
- In 2016, TBM received 'The Social Impact Award' by 'Plug and Play Tech Center'. TBM is the first organization to receive this award.
- In 2017, TBM got awarded as one of the five most 'Innovation Showcase Companies' by 'Japan-US Innovation Awards'.

[Paper alternative (LIMEX sheet)]

One ton of paper is made from around 20 trees and 100 tons of water while LIMEX uses almost no water and no trees. One ton of LIMEX paper is made from 0.6~0.8 tonnes of limestone and 0.2~0.4 tonnes of polyolefin resin.

*Paper manufacturer in Japan plant trees for sustainability.

*LIMEX sheet and conventional paper are different in waste disposal ways. LIMEX should be disposed as combustible waste, not as recycling.

[Plastic alternative (LIMEX pellet)]

- While conventional plastic is made completely from petroleum-based resin, LIMEX pellet is made mainly from limestone, which can reduce the amount of petroleum-based resin.
- Compared with petroleum-derived resin limestone costs lower.
- LIMEX sheet can be up cycled to LIMEX pellet.

[Deposits of limestone]

- Limestone is self-sufficient in Japan and abundant around the world.

■ TBM Co., Ltd

CEO	Nobuyoshi YAMASAKI
Head Office	2-7-17-6F, Ginza, Chuo-ku, Tokyo
Founded	2011
Capital	6.08 billion yen (Including legal capital surplus)
Business description	Development, manufacture and sales of LIMEX and LIMEX products
URL	https://tb-m.com/en/

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