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Toyobo's BREATHAIR®, adopted for premier seats in new Jumbo Ferry ship "Aoi": a three-dimensional network structured fiber material, used for the first time in a ship

BREATHAIR®, a three-dimensional network structured fiber material manufactured by Toyobo Co., Ltd., has been adopted for premier seats in the Aoi, a new ship belonging to Jumbo Ferry Co., Ltd. The Aoi will begin service between Kobe Port and Takamatsu Port via Shodoshima Island on October 22, 2022. It is the first time this material has been used for ship seating.



The Aoi, a new ferry
(Photo provided by Jumbo Ferry)



Premier seats of the Aoi that use BREATHAIR®
(Photo provided by Jumbo Ferry)



BREATHAIR®, a three-dimensional
network structured fiber material

BREATHAIR® has a three-dimensional structure that consists of each-combined randomized loops of thermoplastic elastomer filaments made of Toyobo's PELPRENE®. It is very light, resilient, durable and breathable. BREATHAIR® has been widely used as an alternative to polyurethane foam in cushion material, including mattresses and pillows for home and business use, as well as seats for motorcycles and railway cars.

The material is used for seats in railway cars, including the Central Japan Railway Company (JR Central)'s "N700S" Tokaido Shinkansen bullet train and carriages running on conventional railway and subway lines. BREATHAIR® is now being used in a ship for the first time thanks to its excellent breathability and body pressure dispersion, which are exhibited by the material's unique structure. It will help ensure comfort when seated by reducing the amount of humidity on the seat and by preventing body pressure from being concentrated on part of the seat.

The Aoi is the first ship built in 32 years for Kobe, Hyogo Prefecture-based Jumbo Ferry, headed by President Masayoshi Yamagami. It is 40 percent bigger than the company's current ferries. This gives the vessel increased transport capacity, as well as enhancing its safety and energy-saving functions. The passenger cabin is designed according to the concept of a "floating resort." The ferry company says this will allow passengers to enjoy a better quality of voyage than what conventional cabins can offer. BREATHAIR® is one of seven new technologies and materials featured in the Aoi that have been adopted to provide passengers with more convenience and comfort.

Toyobo aims to expand the use of BREATHAIR® for ships at domestic and overseas, and actively expand its sales into new fields by demonstrating its excellent features.

■ BREATHAIR®

This material is a three-dimensional structure that consists of each-combined randomized loops made of Toyobo's PELPRENE®, thermoplastic polyether ester elastomer. Since its market debut in 1996, it has been used for mattresses and pillows both for home and business use, seats for baby strollers, motorcycles, railway cars and gaming chairs, to name just a few applications.

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