

KAITEKI Value for Tomorrow

Mitsubishi Chemical Holdings Group

September 28, 2021

Bio-based Engineering Plastic "DURABIO™" Used for Toyota's New "MIRAI"

Mitsubishi Chemical Corporation

The bio-based engineering plastic "DURABIO™," developed by Mitsubishi Chemical Corporation (MCC; Head office: Chiyoda-ku, Tokyo; President: Masayuki Waga), has been used the rear heater control panel of the new model fuel cell electric vehicle "MIRAI," sold by Toyota Motor Corporation (Toyota; Head office: Toyota-shi, Aichi; President: Akio Toyoda) since December 2020. This is the first time DURABIO™ has been used in the MIRAI.



TMC's New "MIRAI"



DURABIO™ used for its console

DURABIO™ is a bio-based engineering plastic that uses isosorbide, a renewable plant-derived raw material with superior impact, weatherability, and heat resistance properties compared to general engineering plastics. In addition, while general engineering plastics are known to degrade (exhibiting white turbidity, etc.) by a substance contained in automobile seats known as amine, DURABIO™ also features excellent amine resistance. Taking advantage of these characteristics, DURABIO™ is increasingly being used in automobile interior and exterior design parts such as in-vehicle display front panels and front grilles.

Toyota's MIRAI is a fuel cell electric vehicle that runs on electricity generated from hydrogen, and is also an eco-friendly vehicle called the "ultimate eco-car" that will contribute toward solving environmental and energy issues. MCC's DURABIO™ was selected because it satisfies the physical properties required of interior materials in terms of impact resistance and chemical resistance, etc., and moreover, because it is made from plant-derived raw materials, which matches the MIRAI's eco-friendly concept.

We will contribute to the creation of eco-friendly cars by developing applications for DURABIO[™], which is derived from plants and can contribute to the reduction of environmental load.



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