

TMC to Use Bio-PET 'Ecological Plastic' in Vehicle Interiors

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Toyota City, Japan, October 13, 2010—Toyota Motor Corporation (TMC) announces it plans to make vehicle liner material and other interior surfaces from a new “Ecological Plastic”¹ that features the world’s first use of bio-PET². Starting with the luggage-compartment liner in the Lexus “CT200h” due at the beginning of 2011, TMC plans to increase both the number of vehicle series featuring the new material, as well as the amount of vehicle-interior area covered by it, and intends to introduce a vehicle model in 2011 in which Ecological Plastic will cover 80 percent of the vehicle interior.

The epoch-making bio-PET-based Ecological Plastic—developed with Toyota Tsusho Corporation—is characterized by: 1) enhanced performance (heat-resistance, durability performance, shrink resistance) compared to conventional bio-plastics and performance parity with petroleum-based PET, 2) the potential to approach the cost-per-part performance of petroleum-based plastics through volume production and 3) usability in seats and carpeting and other interior components that require a high level of performance unattainable by hitherto Ecological Plastic.

Ecological Plastic has the benefit of being more carbon neutral than conventional petroleum-based plastics, meaning it can lessen product-life-cycle CO₂ emissions; use of it can contribute to a reduction in the use of limited petroleum resources. TMC has been engaged in applying Ecological Plastics to automobiles since 2000, and, in May 2003, became the first in the world to use in a mass-production vehicle a bio-plastic made from polyactic acid, which was introduced in the spare tire cover and floor mats of the Japanese-market “Raum” small car. TMC has since expanded its use of Ecological Plastic, achieving the world’s highest level³ of use of bio-plastics in a vehicle by using it to cover 60 percent of the exposed surfaces of interior parts in the “Sai” hybrid sedan launched in December 2009.

¹*The collective name of plastics developed by TMC for automobiles and that use plant-derived material and are more heat- and shock-resistant, etc., than conventional bio-plastics.*

²*Polyethylene terephthalate; consists of 70% terephthalic acid and 30% monoethylene glycol, by weight; bio-PET is made by replacing monoethylene glycol with a biological raw material derived from sugar cane.*

³*As of September 2010, according to a TMC survey.*