

ENASAVE 100 AAA AA A B C

ENASAVE 100, the world's first* mass-produced 100% fossil resource-free tire

* The first since synthetic rubber became the standard tire material. Survey conducted by Sumitomo Rubber Industries

Fossil Resource-Free Tires

With an eye toward the future depletion of petroleum resources, in 2001 Sumitomo Rubber Industries began working on the development of a fossil resource-free tire, one that contains no materials derived from crude oil or coal, currently the mainstays of tire manufacture.

Overcoming the Challenge of "Remaining 3%"

When the Company introduced the 97% fossil resource-free ENASAVE 97 tire in 2008, its last challenge on the guest to 100% was to replace the petroleum-based chemicals—such as rubber antioxidants, vulcanization accelerators and carbon black—that constituted the remaining 3%. Focusing its R&D efforts on overcoming this challenge, Sumitomo Rubber Industries developed technologies that use special catalysts to synthesize rubber antioxidants and vulcanization accelerators from plant-derived biomass materials. At the same time, we succeeded in producing carbon black from plant-derived oil. Finally, a 100% fossil resourcefree tire was achieved.

Eco-Friendly ENASAVE 100 Garners an Outstanding Reputation around the World

The ENASAVE 100, launched in November 2013, not only exclusively uses non-fossil resource-derived materials, it also delivers a 19% improvement in wear durability compared with the Company's conventional products. Moreover, this product boasts superior fuel efficiency and wet grip performance. In recognition of these remarkable features, the ENASAVE 100 won the Excellence Award in the 10th Eco-Products Awards, one of Japan's most prominent bodies recognizing eco-friendliness. Furthermore, the product was commended as the Environmental Achievement of the Year at the Tire Technology Expo 2014 held in Germany, gaining an outstanding reputation not only in Japan but also around the world.

Creation of ENASAVE 100—Technological advancements leading to a switchover from petroleum-based materials Modifications Synthetic alternatives Synthetic alternatives Improve gripping **Natural** performance (treads) rubber Ш Develop substitutes for materials Enhance crack resistance and durability (sidewalls) derived from fossil resources A material suited for tires with less Modifications rolling resistance Reduce gas permeability **Primary biomass materials** (inner liners) Rapeseed oil Corn Pine oil alternatives **Natural alternatives** Natural rubber Silica