The market foresight of high intensity and lightweight materials for the next generation's automobiles

2013 - 2025

- Lightweight materials for the next generation's automobiles

10-year market foresight from 2013 to 2025

【Summarized version】

【Outlines of the research】

◆Main points of the research report

In this research report, we conducted the reality check of the market volume per material (such as steels and aluminium) from 2011 to 2025 regarding the constructional materials of the whole automobiles (auto body sheet, structural parts, and underbody parts) including the next generation's automobiles, and the future forecast.

◆The definition of lightweight and high-intensity materials

There are various materials to be selected depending on the environment for usage and the purposes regarding the constructional materials of automobiles. There is a trend that more lightweight and high-intensity materials are selected in many cases. Of course, they do not decide based on their own unique characteristic factors only when they implement material designs. It is normal that various elements such as workability, cost and procureability are considered for comparisons. The level of requirement for the lightweight and the high-intensity is different depending on various conditions such as purposes and usage environments.

Although this research report does not include the functional materials which give the first priority on functional aspects such as electromagnetic performance, we have included additional aspects to the basic functions as the constructional materials such as lightweight and high-intensity materials.

◆The definition of the next generation's automobiles
At this time, we will talk about HEV (Hybrid), PHEV (Plug-in hybrid), EV (Electronic vehicle), and FCV (Fuel cell vehicle) as the next generation's automobiles. Please note that we defined "1. The automobile production worldwide" as the whole vehicle production including the next generation's automobiles as well as the current gas vehicles and diesel vehicles.

◆The period of research
The period of the research for this report is from 2011 to 2025. For 2011 and 2012, the data are of the actual results and those in and after 2013 are of the predictions based on the research.

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【Outlines for release】

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