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Lightweight and Sustainable Composite Materials

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8 - Lightweight and sustainable materials for automotive applications

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Abstract

The aim of the chapter is to provide a summary of the existing applications for biofiber-based polymer composites in the automobile industry. Bio-based polymer composites are being investigated as a potential substitute for their synthetic equivalents as there is a growing awareness of the need to protect the environment from the pollution created by petroleum-based polymer composites. Excellent mechanical, esthetic, and processing qualities can all be found in biofiber-based polymer composites. They are also widely utilized in vehicle applications such dashboards, door panels, door pockets, and battery covers. Thus many automakers use biofiber-based composites for (1) reducing the overall weight and (2) increasing efficiency, such as mileage, of the vehicles. For instance, the first supercar was made using cellulose and agricultural waste. Hence, the focus of this study is on biofiber-based composites utilized in the automotive industry.

References (0)

Cited by (2)