

Global Markets for Vehicle Lightweighting Technologies

https://marketpublishers.com/r/GDEB321B51ABEN.html

Date: October 2019 Pages: 199 Price: US\$ 2,750.00 (Single User License) ID: GDEB321B51ABEN

Abstracts

SCOPE OF REPORT:

This study reviews key vehicle lightweighting technology categories, along with relevant market and production information, technological descriptions and issues, and key applications and market factors in major worldwide markets. The report organizes lightweighting technologies into the following segments, with detailed market data presented for each of the categories -

Engine lightweighting.

Engine auxiliary lightweighting.

Transmission lightweighting.

Drive shaft and differential lightweighting.

Body and frame lightweighting.

Interior lightweighting.

Fuel and exhaust system lightweighting.

The following vehicle lightweighting materials categories are also considered within the global market for vehicle lightweighting technologies -



High strength steel.

Aluminum.

Magnesium.

Advanced polymers.

Composites.

Natural and other materials.

REPORT INCLUDES:

59 data tables and 20 additional tables

An overview of global markets for vehicle lightweighting technologies

Analyses of global market trends, with data from 2018, estimates for 2019, and projections of compound annual growth rates (CAGRs) through 2024

Country specific data and analysis for United States, Canada, Germany, France, Italy, UK, Japan, China, India and South Korea

Coverage of history, characteristics, types, technologies and applications and recent advancements within the industry

Relevant patent analysis

Comprehensive company profiles of key players in the market, including 3M CO., BASF CORP., DuPont, General Motors, Honda Motor Co., Ltd., Tata Steel and Toyota Motor Corp.



Contents

CHAPTER 1 INTRODUCTION

Study Goals and Objectives Reasons for Doing This Study Intended Audience Scope of Report Information Sources Methodology Regional Breakdown Analyst's Credentials BCC Custom Research Related BCC Research Reports

CHAPTER 2 SUMMARY AND HIGHLIGHTS

CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND

What is Lightweighting? Lightweight Materials Versus Lightweight Design Summary of Vehicle Lightweighting Technologies and Materials Vehicle Lightweighting: A Brief History **Fuel Efficiency Standards** Lightweighting Technology Categories Engines **Engine Peripherals and Auxiliaries** Transmissions **Drive Shaft and Differential** Body, Frame and Suspension Interior Fuel and Exhaust Systems Lightweighting Materials High Strength Steel and High Strength Alloys Aluminum Magnesium **Advanced Polymers and Plastics** Composites Natural and Other Materials



Technologies Not Included in This Report

CHAPTER 4 GLOBAL MARKET SUMMARY

Scope of Market Analysis Global Market for Vehicle Lightweighting, by Region Global Market for Vehicle Lightweighting, by Technology Global Market for Vehicle Lightweighting, by Material

CHAPTER 5 MARKET BREAKDOWN BY TECHNOLOGY

Global Market for Lightweighting Technologies: Engines Global Summary North American Market **European Market** Asian Market Global Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries Global Summary North American Market **European Market** Asian Market Global Market for Lightweighting Technologies: Transmissions Global Summary North American Market European Market Asian Market Global Market for Lightweighting Technologies: Drive Shaft and Differential Global Summary North American Market European Market Asian Market Global Market for Lightweighting Technologies: Body, Frame and Suspension Global Summary North American Market European Market Asian Market Global Market for Lightweighting Technologies: Interior Components Global Summary North American Market



European Market Asian Market Global Market for Lightweighting Technologies: Fuel and Exhaust Systems Global Summary North American Market European Market Asian Market

CHAPTER 6 MARKET BREAKDOWN BY MATERIAL

Global Vehicle Lightweighting Market for High Strength Steel

- Global Summary
- North American Market
- European Market
- Asian Market
- Global Vehicle Lightweighting Market for Aluminum
- Global Summary
- North American Market
- European Market
- Asian Market
- Global Vehicle Lightweighting Market for Magnesium
- Global Summary
- North American Market
- **European Market**
- Asian Market
- Global Vehicle Lightweighting Market for Advanced Polymers and Plastics
- **Global Summary**
- North American Market
- European Market
- Asian Market
- Global Vehicle Lightweighting Market for Composites
- **Global Summary**
- North American Market
- **European Market**
- Asian Market
- Global Vehicle Lightweighting Market for Natural Products and Other Materials
- Global Summary
- North American Market
- European Market



Asian Market

CHAPTER 7 INDUSTRY TRENDS AND MARKET OPPORTUNITIES

Supply Chains **Raw Materials Producers** Commodity Supply Chain **Chemicals Production Specialists Specialty Metals Manufacturers** Other Materials Manufacturers and Fabricators Semiconductor Manufacturers **Electronics Equipment Manufacturers Component Original Equipment Manufacturers** Specialty Equipment Manufacturers Vehicle OEMs Distributors End Users Industry and Key Research Organizations Summary of Growth Drivers, Inhibitors, and Industry Trends CAFE Standards and Other Fuel Efficiency Standards Trump Administration and Fuel Efficiency Standards Lightweighting Triple Bottom Line Sustainability Emissions

CHAPTER 8 PATENT REVIEW/NEW DEVELOPMENTS

Annual Granted Patents Patent Country of Origin Key Players Patent Code Map Patent Materials Map

CHAPTER 9 COMPANY PROFILES

3M CO. ADIENT AISIN SEIKI CO. APTIV



ARCONIC BASF CORP. **BENTELER AUTOMOTIVE BMW GROUP** BORGWARNER INC. **BROSE FAHRZEUGTEILE GMBH** CONTINENTAL AG COOPER STANDARD **CUMMINS** DAIMLER DENSO CORP. DUPONT DURA AUTOMOTIVE SYSTEMS EBERSPACHER GRUPPE GMBH **EVONIK INDUSTRIES** FAURECIA FORD MOTOR CO. **GENERAL MOTORS** GESTAMP **GKN PLC** HONDA MOTOR CO. LTD. **HYUNDAI MOBIS** HYUNDAI MOTOR GROUP MAGNA INTERNATIONAL INC. MAHLE GMBH MARTINREA MAZDA MERCEDES-BENZ NANOSTEEL NEMAK **NOVELIS** PLASTIC OMNIUM CO. **RICARDO PLC ROBERT BOSCH GMBH** SAMVARDHANA MOTHERSON GROUP SHILOH INDUSTRIES TATA STEEL THYSSENKRUPP AG TOYOTA MOTOR CORP.



ZF FRIEDRICHSHAFEN

CHAPTER 10 PATENT SUMMARY

CHAPTER 11 APPENDIX: ABBREVIATIONS



List Of Tables

LIST OF TABLES

Summary Table: Global Market for Vehicle Lightweighting, by Material Category, Through 2024 Table A: Information Sources for This Study Table 1: Vehicle Lightweighting Technologies Considered in This Study Table 2: Vehicle Lightweighting Materials Considered in This Study Table 3: Comparison of Fuel Efficiency Standards, by Country Table 4: Common Targets for Engine Lightweighting Table 5: Common Targets for Engine Peripheral and Auxiliary Lightweighting Table 6: Common Targets for Transmission Lightweighting Table 7: Common Targets for Drive Shaft, Differential, and Axle Lightweighting Table 8: Common Targets for Body and Frame Lightweighting Table 9: Common Targets for Interior Lightweighting Table 10: Common Targets for Fuel and Exhaust System Lightweighting Table 11: Benefits and Drawbacks of High Strength Steel Table 12: Benefits and Drawbacks of Aluminum Table 13: Benefits and Drawbacks of Magnesium Table 14: Benefits and Drawbacks of Polymers and Plastics Table 15: Benefits and Drawbacks of Composites Table 16: Benefits and Drawbacks of Titanium Table 17: Benefits and Drawbacks of Bio-based Products Table 18: Global Market for Vehicle Lightweighting, by Region, Through 2024 Table 19: North American Market for Vehicle Lightweighting, by Country, Through 2024 Table 20: European Market for Vehicle Lightweighting, by Country, Through 2024 Table 21: Asian Market for Vehicle Lightweighting, by Country, Through 2024 Table 22: Global Market for Vehicle Lightweighting, by Technology, Through 2024 Table 23: Global Market for Vehicle Lightweighting, by Material, Through 2024 Table 24: Global Market for Lightweighting Technologies: Engines, by Region, Through 2024 Table 25: North American Market for Lightweighting Technologies: Engines, by Country, Through 2024 Table 26: European Market for Lightweighting Technologies: Engines, by Country, Through 2024 Table 27: Asian Market for Lightweighting Technologies: Engines, by Country, Through 2024 Table 28: Global Market for Lightweighting Technologies: Engine Peripherals and



Auxiliaries, by Region, Through 2024 Table 29: North American Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Country, Through 2024 Table 30: European Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Country, Through 2024 Table 31: Asian Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Country, Through 2024 Table 32: Global Market for Lightweighting Technologies: Transmissions, by Region, Through 2024 Table 33: North American Market for Lightweighting Technologies: Transmissions, by Country, Through 2024 Table 34: European Market for Lightweighting Technologies: Transmissions, by Country, Through 2024 Table 35: Asian Market for Lightweighting Technologies: Transmissions, by Country, Through 2024 Table 36: Global Market for Lightweighting Technologies: Drive Shaft and Differential, by Region, Through 2024 Table 37: North American Market for Lightweighting Technologies: Drive Shaft and Differential, by Country, Through 2024 Table 38: European Market for Lightweighting Technologies: Drive Shaft and Differential, by Country, Through 2024 Table 39: Asian Market for Lightweighting Technologies: Drive Shaft and Differential, by Country, Through 2024 Table 40: Global Market for Lightweighting Technologies: Body, Frame, and Suspension, by Region, Through 2024 Table 41: North American Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, Through 2024 Table 42: European Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, Through 2024 Table 43: Asian Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, Through 2024 Table 44: Global Market for Lightweighting Technologies: Interior Components, by Region, Through 2024 Table 45: North American Market for Lightweighting Technologies: Interior Components, by Country, Through 2024 Table 46: European Market for Lightweighting Technologies: Interior Components, by Country, Through 2024 Table 47: Asian Market for Lightweighting Technologies: Interior Components, by Country, Through 2024



Table 48: Global Market for Lightweighting Technologies: Fuel and Exhaust, by Region, Through 2024

Table 49: North American Market for Lightweighting Technologies: Fuel and Exhaust, by Country, Through 2024

Table 50: European Market for Lightweighting Technologies: Fuel and Exhaust, by Country, Through 2024

Table 51: Asian Market for Lightweighting Technologies: Fuel and Exhaust, by Country, Through 2024

Table 52: Global Market for Vehicle Lightweighting Materials: High Strength Steel, by Region, Through 2024

Table 53: North American Market for Vehicle Lightweighting Materials: High Strength Steel, by Country, Through 2024

Table 54: European Market for Vehicle Lightweighting Materials: High Strength Steel, by Country, Through 2024

Table 55: Asian Market for Vehicle Lightweighting Materials: High Strength Steel, by Country, Through 2024

Table 56: Global Market for Vehicle Lightweighting Materials: Aluminum, by Region, Through 2024

Table 57: North American Market for Vehicle Lightweighting Materials: Aluminum, by Country, Through 2024

Table 58: European Market for Vehicle Lightweighting Materials: Aluminum, by Country, Through 2024

Table 59: Asian Market for Vehicle Lightweighting Materials: Aluminum, by Country, Through 2024

Table 60: Global Market for Vehicle Lightweighting Materials: Magnesium, by Region, Through 2024

Table 61: North American Market for Vehicle Lightweighting Materials: Magnesium, by Country, Through 2024

Table 62: European Market for Vehicle Lightweighting Materials: Magnesium, by

Country, Through 2024

Table 63: Asian Market for Vehicle Lightweighting Materials: Magnesium, by Country, Through 2024

Table 64: Global Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Region, Through 2024

Table 65: North American Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Country, Through 2024

Table 66: European Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Country, Through 2024

Table 67: Asian Market for Vehicle Lightweighting Materials: Advanced Polymers and



Plastics, by Country, Through 2024

Table 68: Global Market for Vehicle Lightweighting Materials: Composites, by Region, Through 2024

Table 69: North American Market for Vehicle Lightweighting Materials: Composites, by Country, Through 2024

Table 70: European Market for Vehicle Lightweighting Materials: Composites, by Country, Through 2024

Table 71: Asian Market for Vehicle Lightweighting Materials: Composites, by Country, Through 2024

Table 72: Global Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Region, Through 2024

Table 73: North American Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, Through 2024

Table 74: European Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, Through 2024

Table 75: Asian Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, Through 2024

Table 76: Summary of Industry and Select Research Organizations Relevant to

Automotive Lightweighting

Table 77: Summary of Select Patents

Table 78: Abbreviations Used in This Study



List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for Vehicle Lightweighting, by Material Category, 2018-2024 Figure 1: Typical Mass Reductions from Lightweighting with Common Alternative Materials Figure 2: Global Market for Vehicle Lightweighting, by Region, 2018-2024 Figure 3: North American Market for Vehicle Lightweighting, by Country, 2018-2024 Figure 4: European Market for Vehicle Lightweighting, by Country, 2018-2024 Figure 5: Asian Market for Vehicle Lightweighting, by Country, 2018-2024

Figure 6: Global Market for Vehicle Lightweighting, by Technology, 2018-2024

Figure 7: Global Market for Vehicle Lightweighting, by Material, 2018-2024

Figure 8: Global Market for Lightweighting Technologies: Engines, by Region, 2018-2024

Figure 9: North American Market for Lightweighting Technologies: Engines, by Country, 2018-2024

Figure 10: European Market for Lightweighting Technologies: Engines, by Country, 2018-2024

Figure 11: Asian Market for Lightweighting Technologies: Engines, 2018-2024

Figure 12: Global Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Region, 2018-2024

Figure 13: North American Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Country, 2018-2024

Figure 14: European Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, by Country, 2018-2024

Figure 15: Asian Market for Lightweighting Technologies: Engine Peripherals and Auxiliaries, 2018-2024

Figure 16: Global Market for Lightweighting Technologies: Transmissions, by Region, 2018-2024

Figure 17: North American Market for Lightweighting Technologies: Transmissions, by Country, 2018-2024

Figure 18: European Market for Lightweighting Technologies: Transmissions, by Country, 2018-2024

Figure 19: Asian Market for Lightweighting Technologies: Transmissions, by Country, 2018-2024

Figure 20: Global Market for Lightweighting Technologies: Drive Shaft and Differential, by Region, 2018-2024



Figure 21: North American Market for Lightweighting Technologies: Drive Shaft and Differential, by Country, 2018-2024 Figure 22: European Market for Lightweighting Technologies: Drive Shaft and Differential, by Country, 2018-2024 Figure 23: Asian Market for Lightweighting Technologies: Drive Shaft and Differential, 2018-2024 Figure 24: Global Market for Lightweighting Technologies: Body, Frame, and Suspension, by Region, 2018-2024 Figure 25: North American Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, 2018-2024 Figure 26: European Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, 2018-2024 Figure 27: Asian Market for Lightweighting Technologies: Body, Frame, and Suspension, by Country, 2018-2024 Figure 28: Global Market for Lightweighting Technologies: Interior Components, by Region, 2018-2024 Figure 29: North American Market for Lightweighting Technologies: Interior Components, by Country, 2018-2024 Figure 30: European Market for Lightweighting Technologies: Interior Components, by Country, 2018-2024 Figure 31: Asian Market for Lightweighting Technologies: Interior Components, by Country, 2018-2024 Figure 32: Global Market for Lightweighting Technologies: Fuel and Exhaust, by Region, 2018-2024 Figure 33: North American Market for Lightweighting Technologies: Fuel and Exhaust, by Country, 2018-2024 Figure 34: European Market for Lightweighting Technologies: Fuel and Exhaust, by Country, 2018-2024 Figure 35: Asian Market for Lightweighting Technologies: Fuel and Exhaust, by Country, 2018-2024 Figure 36: Global Market for Vehicle Lightweighting Materials: High Strength Steel, by Region, 2018-2024 Figure 37: North American Market for Vehicle Lightweighting Materials: High Strength Steel, by Country, 2018-2024 Figure 38: European Market for Vehicle Lightweighting Materials: High Strength Steel,

by Country, 2018-2024

Figure 39: Asian Market for Vehicle Lightweighting Materials: High Strength Steel, by Country, 2018-2024

Figure 40: Global Market for Vehicle Lightweighting Materials: Aluminum, by Region,



2018-2024

Figure 41: North American Market for Vehicle Lightweighting Materials: Aluminum, by Country, 2018-2024

Figure 42: European Market for Vehicle Lightweighting Materials: Aluminum, by Country, 2018-2024

Figure 43: Asian Market for Vehicle Lightweighting Materials: Aluminum, by Country, 2018-2024

Figure 44: Global Market for Vehicle Lightweighting Materials: Magnesium, by Region, 2018-2024

Figure 45: North American Market for Vehicle Lightweighting Materials: Magnesium, by Country, 2018-2024

Figure 46: European Market for Vehicle Lightweighting Materials: Magnesium, by Country, 2018-2024

Figure 47: Asian Market for Vehicle Lightweighting Materials: Magnesium, by Country, 2018-2024

Figure 48: Global Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Region, 2018-2024

Figure 49: North American Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Country, 2018-2024

Figure 50: European Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Country, 2018-2024

Figure 51: Asian Market for Vehicle Lightweighting Materials: Advanced Polymers and Plastics, by Country, 2018-2024

Figure 52: Global Market for Vehicle Lightweighting Materials: Composites, by Region, 2018-2024

Figure 53: North American Market for Vehicle Lightweighting Materials: Composites, by Country, 2018-2024

Figure 54: European Market for Vehicle Lightweighting Materials: Composites, by Country, 2018-2024

Figure 55: Asian Market for Vehicle Lightweighting Materials: Composites, by Country, 2018-2024

Figure 56: Global Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Region, 2018-2024

Figure 57: North American Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, 2018-2024

Figure 58: European Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, 2018-2024

Figure 59: Asian Market for Vehicle Lightweighting Materials: Natural Products and Other Materials, by Country, 2018-2024



Figure 60: Lightweight Vehicle Component Supply Chain

Figure 61: Published Patents for Automotive Lightweighting, 2009-June 2019

Figure 62: Published Patents for Vehicle Lightweighting Components, by Country, 2008-June 2019

Figure 63: Top 50 Corporate Leaders in Vehicle Lightweighting Patent Development, 2009-June 2019

Figure 64: Code Map for Patents Targeting Vehicle Lightweighting Technologies, 2009-June 2019

Figure 65: Vehicle Lightweighting Materials Targeted in R&D Efforts, 2008-June 2019



I would like to order

Product name: Global Markets for Vehicle Lightweighting Technologies Product link: https://marketpublishers.com/r/GDEB321B51ABEN.html Price: US\$ 2,750.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/GDEB321B51ABEN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970