

# **Automotive Engine Encapsulation Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032**

<https://marketpublishers.com/r/A882AB1F529EEN.html>

Date: November 2024

Pages: 225

Price: US\$ 4,850.00 (Single User License)

ID: A882AB1F529EEN

## **Abstracts**

The Global Automotive Engine Encapsulation Market was valued at USD 6.8 billion in 2023 and is projected to experience a CAGR of 4.6% from 2024 to 2032. As automakers face increasing pressure to meet stringent environmental regulations, engine encapsulation has emerged as a vital solution to enhance fuel efficiency and reduce carbon emissions.

Engine encapsulation involves enclosing the engine in an insulated housing, which helps maintain an optimal operating temperature. This reduces the engine's reliance on additional fuel to stay warm, resulting in improved fuel economy and lower emissions. With environmental regulations tightening worldwide, automakers are turning to this technology to achieve compliance while delivering vehicles that are both efficient and eco-friendly.

The demand for lightweight materials in encapsulation systems has further fueled market growth. Materials such as polypropylene, polyurethane, and carbon fiber provide excellent thermal insulation while significantly reducing vehicle weight. A lighter vehicle requires less energy to operate, which enhances fuel efficiency, improves handling, and boosts overall performance. As the industry continues its shift toward sustainability and energy efficiency, the use of advanced, lightweight materials is expected to rise.

Despite its benefits, engine encapsulation faces certain challenges, particularly in terms of cost. The high-performance materials required for encapsulation, such as advanced polymers and composites, are expensive. Additionally, designing encapsulation systems tailored to fit different vehicle models is complex and adds to manufacturing expenses. These factors limit the adoption of encapsulation technology in lower-cost

vehicles, restricting its availability to premium segments.

The market is segmented by product type into engine-mounted and body-mounted encapsulation systems. Engine-mounted systems led the market in 2023, accounting for USD 3.8 billion and showing strong growth potential with a projected CAGR of 5.7% through 2032. These systems are particularly effective at retaining engine heat, reducing fuel consumption, and improving cold-start efficiency.

In terms of vehicle type, passenger cars captured a 68.7% share in 2023 and are projected to grow at a 4.8% CAGR during the forecast period. Passenger vehicles benefit greatly from encapsulation technology, which enhances thermal management, lowers fuel consumption, and reduces noise, aligning with consumer preferences for quieter, more efficient cars.

Regionally, North America accounted for USD 1.7 billion in 2023, with a projected CAGR of 4.9% through 2032. The region's focus on stringent emissions standards and consumer demand for energy-efficient vehicles is driving the adoption of encapsulation technologies, especially in premium and electric vehicle segments.

## Contents

### Report Content

#### **CHAPTER 1 METHODOLOGY & SCOPE**

- 1.1 Market scope & definition
- 1.2 Base estimates & calculations
- 1.3 Forecast parameters
- 1.4 Data sources
  - 1.4.1 Primary
  - 1.4.2 Secondary
    - 1.4.2.1 Paid sources
    - 1.4.2.2 Public sources

#### **CHAPTER 2 EXECUTIVE SUMMARY**

- 2.1 Industry 360° synopsis, 2021 - 2032

#### **CHAPTER 3 INDUSTRY INSIGHTS**

- 3.1 Industry ecosystem analysis
  - 3.1.1 Factors affecting the value chain
  - 3.1.2 Profit margin analysis
  - 3.1.3 Disruptions
  - 3.1.4 Future outlook
  - 3.1.5 Manufacturers
  - 3.1.6 Distributors
  - 3.1.7 Retailers
- 3.2 Impact forces
  - 3.2.1 Growth drivers
    - 3.2.1.1 Increased focus on fuel efficiency and emission reduction
    - 3.2.1.2 Growing demand for lightweight materials in vehicles
    - 3.2.1.3 Growth in electric and hybrid vehicle adoption
    - 3.2.1.4 Increase in vehicle production in emerging markets
  - 3.2.2 Industry pitfalls & challenges
    - 3.2.2.1 High production and material cost
    - 3.2.2.2 Complexity in retrofitting and installation
- 3.3 Technology & innovation landscape

### 3.4 Consumer buying behavior analysis

#### 3.4.1 Demographic trends

#### 3.4.2 Factors affecting buying decision

#### 3.4.3 Consumer product adoption

#### 3.4.4 Preferred distribution channel

### 3.5 Growth potential analysis

### 3.6 Regulatory landscape

### 3.7 Pricing analysis

### 3.8 Porter's analysis

### 3.9 PESTEL analysis

## **CHAPTER 4 COMPETITIVE LANDSCAPE, 2023**

### 4.1 Introduction

### 4.2 Company market share analysis

### 4.3 Competitive positioning matrix

### 4.4 Strategic outlook matrix

## **CHAPTER 5 MARKET ESTIMATES & FORECAST, BY PRODUCT TYPE, 2021 – 2032, (USD BILLION)**

### 5.1 Key trends

### 5.2 Engine-mounted

### 5.3 Body-mounted

## **CHAPTER 6 MARKET ESTIMATES & FORECAST, BY VEHICLE TYPE, 2021 – 2032, (USD BILLION)**

### 6.1 Key trends

### 6.2 Passenger cars

### 6.3 Commercial vehicles

## **CHAPTER 7 MARKET ESTIMATES & FORECAST, BY MATERIAL TYPE, 2021 – 2032, (USD BILLION)**

### 7.1 Key trends

### 7.2 Polypropylene

### 7.3 Polyurethane

### 7.4 Carbon fiber

## 7.5 Others

## **CHAPTER 8 MARKET ESTIMATES & FORECAST, BY FUEL TYPE, 2021 – 2032, (USD BILLION)**

### 8.1 Key trends

### 8.2 Petrol

### 8.3 Diesel

## **CHAPTER 9 MARKET ESTIMATES & FORECAST, BY SALES CHANNEL, 2021 – 2032, (USD BILLION)**

### 9.1 Key trends

### 9.2 OEM

### 9.3 Aftermarket

## **CHAPTER 10 MARKET ESTIMATES & FORECAST, BY REGION, 2021 – 2032, (USD BILLION)**

### 10.1 Key trends

### 10.2 North America

#### 10.2.1 U.S.

#### 10.2.2 Canada

### 10.3 Europe

#### 10.3.1 Germany

#### 10.3.2 UK

#### 10.3.3 France

#### 10.3.4 Italy

#### 10.3.5 Spain

### 10.4 Asia Pacific

#### 10.4.1 China

#### 10.4.2 India

#### 10.4.3 Japan

#### 10.4.4 South Korea

#### 10.4.5 Australia

#### 10.4.6 Malaysia

#### 10.4.7 Indonesia

### 10.5 Latin America

#### 10.5.1 Brazil

10.5.2 Mexico

10.6 MEA

10.6.1 Saudi Arabia

10.6.2 UAE

10.6.3 South Africa

## **CHAPTER 11 COMPANY PROFILES (BUSINESS OVERVIEW, FINANCIAL DATA, PRODUCT LANDSCAPE, STRATEGIC OUTLOOK, SWOT ANALYSIS)**

11.1 Adler Pelzer

11.2 Autoneum

11.3 BASF

11.4 Bocholt

11.5 Borgers

11.6 Charlotte Baur Formschaumtechnik

11.7 Continental

11.8 DBW Advanced Fiber Technologies

11.9 ElringKlinger

11.10 Greiner Foam

11.11 Röchling

11.12 SA Automotive

11.13 Trocellen

11.14 UFP Technologies

11.15 Unitex

11.16 Woco

## I would like to order

Product name: Automotive Engine Encapsulation Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032

Product link: <https://marketpublishers.com/r/A882AB1F529EEN.html>

Price: US\$ 4,850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A882AB1F529EEN.html>