

Automotive AHSS - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

<https://marketpublishers.com/r/A1B624EA7756EN.html>

Date: July 2024

Pages: 70

Price: US\$ 4,750.00 (Single User License)

ID: A1B624EA7756EN

Abstracts

The Automotive AHSS Market size is estimated at USD 22.56 billion in 2023, and is expected to reach USD 36.15 billion by 2028, growing at a CAGR of 9.90% during the forecast period (2023-2028).

Advanced high-strength steels (AHSS) help to enhance vehicle safety, efficiency, emissions, manufacturability, durability, and quality at a low cost, which is likely to increase the demand for AHSS. According to the Steel Market Development Institute (SMDI), new grades of steel are bound to play significant roles in vehicles. Advanced high-strength steel significantly outperforms the competing materials for current and future automotive applications.

On average, 900 kg of steel is used per vehicle (up to around 70% of an average automobile's weight). Of these, 40% is used in the body structure, panels, doors, and trunk closures for high-strength and energy absorption in case of a crash, 23% is in the drive train, 12% is in the suspension, and the rest is used in the wheels, tires, fuel tank, steering, and braking systems.

Compared to standard steel, AHSS enables to reduce vehicle weight by 23-35%, which is around 165-250 kg, for a regular passenger car, saving 3-4.5 tons of greenhouse gases over the vehicle's total life cycle. This saving in emissions is much more substantial than the CO2 emitted during the complete production of steel needed in a car.

Automotive AHSS Market Trends

Growing Demand for Passenger Cars to Propel the Market Growth

The growing awareness about the benefits offered by AHSS and the rising passenger car fleet are expected to act as primary driving factors for market growth. Furthermore, the growing electric vehicle sales are also pushing the demand for AHSS market growth.

Electric mobility is swiftly growing globally, owing to the fact that transportation companies are also converting their existing fleets into electric propulsion-based vehicles. OEM is redefining its roadmap for electric vehicles. For instance,?

In February 2023, General Motors (GM) is coming up with a new EV strategy to push its sales. GM expects to push past the competition with plans to launch seven Ultium-based Evs. Furthermore, the company is focusing on retooling its supply chain for the Bolt EV and EUV in the near future.

Due to the high cost of aluminum as compared to steel, the price of electric vehicles is becoming higher. Therefore, advanced high-strength steels are being used as alternatives due to their stiffness, strength, and ability to absorb energy in the event of a crash. As AHSS has such a high strength, the thickness of the parts can be reduced, helping to bring down the weight. Major vehicle manufacturers use AHSS over conventional steel, which reduces the weight by 25-39%. Such a reduction in vehicle weight helps enhance vehicle fuel efficiency.

Many automobile manufacturing companies are likely to monetize the outpouring of opportunities by gradually including sustainable mobility vehicles in their portfolio. For instance,

In March 2022, Ford Motors announced that it would include three all-electric passenger vehicles in Europe by the end of 2024 and set a target to sell more than 600,000 electric vehicles annually by 2026 in Europe.

In January 2022, General Motors announced that it was considering investing more than USD 4 billion in two Michigan factories to increase its electric car manufacturing capacity.

Governments globally have been proactive in enacting policies to encourage the adoption of electric vehicles. China, India, France, and the United Kingdom have announced plans to completely phase out the petrol and diesel vehicles industry before 2040.? By 2040, nearly 54% of the new car sales and 33% of the global car fleets are

expected to be electric. Out of it, more than 50% will be battery-electric.

Europe is Expected to Dominate the Market

Europe is projected to dominate the automotive advanced high-strength steel market during the forecast period. Within Europe, Germany is one of the prominent markets for AHSS in automobiles. As one of the largest automotive markets in the world, Germany plays a crucial role in ensuring vehicle safety, performance, and environmental sustainability. Germany's automotive sector is home to some of the world's most renowned automakers like Volkswagen, BMW, and Mercedes-Benz. This naturally translates into a substantial demand for high-strength steel.

The country is the largest steel producer in the EU28, with an annual production of approximately 38.64 billion metric tons of crude steel in 2022. Germany is one of the fastest-growing European countries, even in the electric vehicles market.

According to IEA, in 2022, Germany registered nearly 8.3 million units of electric vehicle (BEV) sales (including battery electric vehicles (BEVs) and plug-in hybrid vehicles (PHEVs)). Future applications of advanced high-strength steel in these electric vehicles are also anticipated to propel the market.

Additionally, due to the existence of major companies like ThyssenKrupp AG, SSAB Group, and Lech-Stahlwerke GmbH, this region is expected to rise towards high growth and high-value segments in the coming years. Additionally, carmakers such as Daimler, Volkswagen, Volvo, Opel, and Toyota are working together to produce more efficient vehicles. Their goal is to reduce energy consumption by 10% and global warming potential (GWP) by 6% by reducing the vehicle's weight by 31-33% while maintaining the cost. These developments are expected to help the market grow.

Asia-Pacific will remain an extremely attractive market over the forecast period due to the rising automotive production along with green field investments around the region. Following Europe, Asia-Pacific also dominates the significant market share in terms of revenue during the forecast period. An enactment of stringent regulations regarding vehicle fuel efficiency and vehicle safety across the world is likely to boost the market.

Automotive AHSS Industry Overview

The major companies in the automotive Advanced High-Strength Steel (AHSS) market include ArcelorMittal SA, ThyssenKrupp AG, SSAB AB, Kobe Steel Ltd, Tata Steel, and Cleveland-Cliffs Inc. Most of the steel companies are now investing heavily in advanced high-strength steel (AHSS). For instance, in November 2023, Kloeckner & Co. announced the acquisition of Industrial Manufacturing Services (IMS) through its subsidiary Kloeckner Metals Corporation. As a result, KMC will significantly strengthen its position within the market and further differentiate its offering from competitors.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

Contents

1 INTRODUCTION

- 1.1 Study Assumptions
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET DYNAMICS

- 4.1 Market Drivers
 - 4.1.1 Stringent Emission and Safety Regulations
- 4.2 Market Restraints
 - 4.2.1 Disruptions in Supply Chain Can Hamper the Market
- 4.3 Industry Attractiveness - Porter's Five Forces Analysis
 - 4.3.1 Threat of New Entrants
 - 4.3.2 Bargaining Power of Buyers/Consumers
 - 4.3.3 Bargaining Power of Suppliers
 - 4.3.4 Threat of Substitute Products
 - 4.3.5 Intensity of Competitive Rivalry

5 MARKET SEGMENTATION

- 5.1 Application Type
 - 5.1.1 Structural Assembly and Closures
 - 5.1.2 Bumpers
 - 5.1.3 Suspension
 - 5.1.4 Other Application Types
- 5.2 Vehicle Type
 - 5.2.1 Passenger Cars
 - 5.2.2 Commercial Vehicles
- 5.3 Geography
 - 5.3.1 North America
 - 5.3.1.1 United States
 - 5.3.1.2 Canada
 - 5.3.1.3 Rest of North America

5.3.2 Europe

5.3.2.1 Germany

5.3.2.2 United Kingdom

5.3.2.3 France

5.3.2.4 Rest of Europe

5.3.3 Asia-Pacific

5.3.3.1 China

5.3.3.2 Japan

5.3.3.3 India

5.3.3.4 South Korea

5.3.3.5 Rest of Asia-Pacific

5.3.4 Rest of the World

5.3.4.1 South America

5.3.4.2 Middle-East and Africa

6 COMPETITIVE LANDSCAPE

6.1 Vendor Market Share

6.2 Company Profiles*

6.2.1 Cleveland-Cliffs Inc.

6.2.2 ThyssenKrupp AG

6.2.3 POSCO

6.2.4 Tata Steel Limited

6.2.5 SSAB AB

6.2.6 United States Steel Corporation

6.2.7 Kobe Steel Ltd

6.2.8 Baoshan Iron & Steel Co. Ltd

7 MARKET OPPORTUNITIES AND FUTURE TRENDS

7.1 Shift Toward Electric Vehicles

I would like to order

Product name: Automotive AHSS - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

Product link: <https://marketpublishers.com/r/A1B624EA7756EN.html>

Price: US\$ 4,750.00 (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 <https://marketpublishers.com/r/A1B624EA7756EN.html>