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Automotive glass industry in South East Asia

Steady growth in the production of passenger and commercial vehicles has been a bonanza for the automotive glass producers in South East Asia. Sunder Singh presents an overview of the region's rapidly expanding automotive glass industry.

Over the last two decades a vibrant automotive sector has developed in South East Asia thanks to steady economic growth in most countries in the region, a sizable population, increasing urbanisation and the relatively low cost of producing automotive glass here (due to less expensive labour than in China and India, and reasonable fuel prices owing to natural gas sourcing from Malaysia).

Five major South East Asian countries – Indonesia, Malaysia, The Philippines, Thailand and Vietnam – collectively accounted for a total of more than 3.5 million (3,536,425 to be precise) automobiles produced in 2021 (see Table). Thailand and Indonesia are leading the table with both the countries producing a total of nearly 2.8 million automobiles. Placed third, Malaysia is also attracting a lot of investment in the automotive industry and is expected to play a key role in the region in the medium and long term. Unfortunately, the second largest country (in terms of population) in the region, Vietnam has failed to develop as a substantial automotive production base despite the steady economic growth of the last decade. *[See page 54 for a full report on the Vietnamese glass industry.]*

The China+1 business strategy [in which alternative supplier relationships are established to avoid investing solely in China] adopted by a number of producers is expected to further boost the automotive industry in South East Asia in the coming years. Countries in the region are expected to be key beneficiaries as firms continue to adjust and diversify some production away from China.

The automotive industry in South East Asia is also seen to benefit in terms of manufacturing investments amid the ongoing friction between China and the United States. A China+1 strategy would be equally beneficial for the automotive glass producers in the region.

UK based think-tank Oxford Economics stated in a December 2022 research report, "South East Asia region is already well established in global and regional supply chains. And it looks set to remain an attractive destination for export-orientated foreign direct investment (FDI) given its labour dynamics, improving quality of infrastructure, and openness to trade."

Country	Global Rank in 2022	2022	2021	2020	2019	2018
Thailand	10	1,883,515	1,685,705	1,427,074	2,013,710	2,167,694
Indonesia	11	1,470,146	1,121,967	691,286	1,286,848	1,343,714
Malaysia	20	702,225	481,651	485,186	571,632	564,800
Vietnam	35	NA	163,250	165,568	250,000	237,000
Philippines	40	NA	83,852	67,297	95,094	79,763
Total no. of automobiles produced			3,536,425	2,836,411	4,217,284	4,392,971

Automotive production in the five leading South East Asian countries in the last five years
Data source: International Organisation of Motor Vehicles Manufacturers (OICA).

Automotive glass industry in the region

Over last decade, steady production growth in three major automotive-producing countries (Thailand, Indonesia and Malaysia) has propelled South East Asia's automotive glass industry to new highs. However, after reaching a historic high in 2018, there has been a decline in overall numbers during the last four years. Based on the production figures of 2018 and 2021, automotive glass demand in 2021 from the OEM segment is nearly 19% lower compared to 2018.

In 2021 the demand for automotive glass in five major South East Asian countries totalled 17.576 million square metres – a sharp 24.82% increase compared to a total consumption of 14.082 million m^2 registered in the first year of the Covid-19 pandemic, when automotive production in the region nosedived due to coronavirus-related restrictions. (However, the figure for 2021 was 19% lower than the record-high of 21.767 million m^2 in 2018.)

The original equipment manufacturers (OEM) segment accounted for 14.32 million m^2 of automotive glass consumption in 2021 – nearly 81.5% of the annual total.

Much like the rest of the global automotive glass industry, escalating demand for automotive glass in South East Asia has outpaced the growth of the automotive industry over the last 10 years, primarily driven by the increased demand for larger windscreens, the popularity of larger/premium automotive models, and increased usage of sun-roofs. In fact, the usage of automotive glass per vehicle has been growing steadily and is expected to continue this trend in the short and medium-term.

Although usage of automotive glass per car has been steadily increasing in South East Asia over the years, it is still nowhere near the ▸

The ASEAN region has witnessed growth in the production of passenger and commercial vehicles.

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global average. The main reason for this is the popularity of low-priced vehicles, which require far less glass than luxury models. According to data from consulting firm Deloitte, nearly eight in 10 passenger cars sold in Indonesia in 2019 cost less than $20,000.

Japanese flat and automotive glass producer AGC Group is the most dominant automotive glass producer in the region, with automotive glass production facilities in Indonesia, Thailand and Malaysia. With a net sales of Yen 351.1 billion of automotive glass in 2021, AGC Group is one of the largest automotive glass producers in the world.

Dominance of Japanese automakers (currently, Japanese automakers account for 95% and 87% of new vehicle sales in Indonesia and Thailand, respectively) in South East Asia has immensely benefited AGC Automotive glass's operations in the region.

Currently, Chinese automotive glass producers don't have a very significant market share in the OEM segment in the South East Asian automotive glass industry. However, this situation is expected to change as some Chinese automotive producers (mostly in the EV segment) have signed a memorandum of understanding (MOU) in Thailand, Indonesia and Malaysia to produce electric vehicles in the coming years. Leading Chinese EV producer BYD signed a deal in 2022 to set up an EV plant in Rayong [Thailand]. Expected to commence commercial production in 2024, the new plant will produce 150,000 automotive units on yearly basis. SAIC and Great Wall Motor (GWM) already have plants in Thailand that plan to produce EVs and SAIC-GM's Wuling facility has begun producing compact EVs in Indonesia.

Indonesia, Malaysia, The Philippines, Thailand and Vietnam collectively accounted for a total of more than 3.5 million automobiles produced in 2021.

Thailand

Often called 'Detroit of Asia', Thailand has maintained the largest automotive market and, consequently, the largest automotive glass market in the region over the last two decades. In 2021, the country was the 10th largest automotive producer globally, according to data from the France-based International Organisation of Motor Vehicles Manufacturers.

Japanese carmakers such as Toyota and Mitsubishi have had operations in Thailand since the 1960s. GM, Ford, Mercedes and BMW all followed.

Supportive policies from the Thai authorities has been the major reason behind the emergence of the country as a regional automotive hub. For three decades, Thailand has imposed an 80% import tariff on automobiles, to keep manufacturing within the country. The government offers land ownership rights for foreign investors and has also introduced various tax incentives favourable to foreign investors. Companies relocating to Thailand are exempt from corporate income ▸

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tax for eight years. In some areas of the country, such as automaking hub Rayong, where Saint Gobain Sekurit's plant is based, Thailand has reduced corporate tax rates by up to 50%.

AGC Automotive: Established in 1974 (as Thai Safety Glass Co., Ltd.), Japanese automotive glass producer AGC Automotive (Thailand) Co., Ltd. is one of the oldest automotive glass producers in Thailand. Today the company operates two automotive glass production plants in Chonburi Industrial Estate and Samutprakan and customers include Mitsubishi, Ford, Mazda, Hino, Nissan, Cheverlot, Isuzu, Toyota and Honda.

Thailand has become such an integral part of AGC Asahi Glass's automotive business that Toyota's Indonesian and Philippines car-making factories source their automotive glass [direct] from Thailand's automotive glass plants.

Saint Gobain Sekurit: Engaged in automotive glass production in Thailand since 1998, Saint Gobain Sekurit is among the leading automotive glass suppliers to vehicle manufacturers in Thailand and producers based in other countries in the South East Asia region.

The company chose Rayong for its production facility due to the proximity of major automotive producers and tax incentives. In 2008, the company commenced operations from its second production line at the same place.

Guardian Glass: Guardian Glass Thailand is a major producer of automotive grade glass in the South East Asia region. Guardian operates two production plants in the country – one in the Saraburi province, north of Bangkok, and the other in Rayong, east of Bangkok. The Rayong plant produces automotive grade float glass. It exports about 50% of its production to other countries in the Asia Pacific, with Australia and Japan being its two largest markets.

Indonesia

The largest country in South East Asia, both in terms of population and geographical area, Indonesia is the second largest producer and consumer of automotive glass in the region. PT Asahimas and PT Mulia Glass are the leading producers of automotive glass in the country.

Indonesia is an attractive automotive market for global players, with Japanese manufacturers such as Toyota, Daihatsu and Mitsubishi largely dominating the scene. Currently, Astra Group, which manages the local arms of Japanese auto giants Toyota, Daihatsu, UD Trucks, and Isuzu, as well as France's Peugeot, account for more than 55% of automotive sales in the country. Japanese dominance in automotive manufacturing has immensely benefited compatriot automotive glass producer PT Asahimas, which has emerged as the largest automotive glass producer and supplier in the country.

Indonesia is expected to play the most important role in the future development of automotive glass industry in the region in the medium and long-term. The country's population, which hovers around the 275 million mark, underlines its growth potential in automotive and automotive glass production and consumption considering the fact that there are only 40 cars per every thousand people.

Global credit rating agency Fitch expects Indonesia's automotive industry and domestic sales to remain steady in 2023, after returning to its pre-pandemic level in 2022. A report from Fitch on Indonesian automotive industry reads, "Growth in the sector may be hindered by rising interest rates, causing consumers to delay large-ticket discretionary purchases with higher borrowing costs, despite easing pressures on purchasing power due to declining inflation. However, overall car demand will continue to be supported in 2023 by steady economic growth. The domestic auto sector will also benefit from abating supply chain disruptions in 2023, including the global semiconductor chip shortage."

PT Asahimas: PT Asahimas is the largest automotive glass producer in Indonesia with an installed capacity of 1.6 million car sets. Located in Cikampek (West Java), PT Asahimas's automotive glass facility produces tempered and laminated safety glass for automotive uses.

In one of the largest investments in 2012, the company expanded its installed capacity by more than 50%. It increased the capacity by 1,750,000 m^2 per year from the previous total of 3,250,000 m^2 per year, taking the overall capacity to 5,000,000 m^2 per year, equivalent to 1.3 million car sets.

PT Asahimas is also the largest float glass producer in Indonesia. With two production facilities at Sidoarjo and Cikampek, the company has an installed capacity to produce 720,000 tonnes of float glass products per year.

PT Mulia Glass: With an installed capacity of 195,000 car sets per annum (p.a.), PT Mulia Glass is the second largest automotive glass producer in Indonesia. Daihatsu, Suzuki, Toyota Motor Manufacturing and Hino are the largest OEM consumers of PT Mulia's automotive glass products. PT Mulia's float glass division has an installed capacity of 625,000 tonnes p.a.

Xinyi Glass: This Chinese flat and automotive glass producer is a potential new entrant in the Indonesian automotive glass industry in the coming years. In August 2022, Xinyi Glass announced its intention to set up a flat glass production plant in the JIIPE special economic zone in Gresik (East Java). The company, however, has not divulged the details and scale of the proposed production plant.

Malaysia

Malaysia has been the rising star in South East Asian automotive industry during the last five years. With production of more than 700,000 automobiles in 2022, it registered over 45% growth compared to 2021. The industry remains as an important and strategic part of the country's manufacturing sector, contributing 4% to Malaysia's GDP and continues to be the third largest automotive market in ASEAN.

Currently there are 28 manufacturing and assembly plants in Malaysia for passenger vehicles, commercial vehicles, motorcycles and scooters, as well as automotive parts and components.

The Malaysian government has announced the National Automotive Policy 2020 to address growing trends and advance Malaysia as a regional leader in manufacturing, engineering, technology and sustainable development in the automotive sector.

Japanese automotive companies have a sizable presence in Malaysia. Toyota holds a 20% stake in the largest automobile producer Perodua.

Malaysian Sheet Glass: Malaysian Sheet Glass Sdn. Bhd., a 100% subsidiary of Japanese flat and automotive glass producer Nippon Sheet Glass (NSG) is the largest automotive glass producer in Malaysia. The company was established in 1971. While NSG had exported technology to the Asian countries, its first direct market entry was in November 1971 with the establishment of Malaysia Sheet Glass. NSG's initial stake of 44% was later increased to 100%, making it a wholly-owned subsidiary with two float furnaces in operation.

In 2015, NSG increased the installed capacity of Malaysian automotive glass plant by relocating equipment from a Finnish plant that was closed in 2014 (due to declining glass demand in Europe).

Xinyi Glass – Malaysia: Xinyi Glass is the leading player in the Malaysian automotive replacement glass (ARG) market. Xinyi Glass entered the Malaysian glass market by setting up a float glass plant in the middle of the last decade. Thereafter, the company has added new float glass lines.

This glass production base in Malaysia has also enabled Xinyi to import automotive glass from Chinese production plants. Currently, Xinyi Malaysia is in the process of adding new automotive capacity of 400,000 pieces p.a. at its production plant. Set up with the intention of exporting automotive products from this plant after meeting the domestic demand, this expansion is expected to commence commercial production in the current year. Xinyi Glass holds over 25% market share in the global ARG market.

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