



On the Spot... Sanjay Ganjoo

Celebrating its 25th anniversary, Asahi India Glass (AIS) is a leading integrated manufacturer of all types of flat glass and a dominant player in the automotive and architectural glass value chains. Sanjay Ganjoo, COO Architectural Glass at AIS and former AIGMF President, spoke exclusively to *Glass Worldwide* (preferred international AIGMF journal) about the company's recent investments and the current status of the different flat glass sectors in India.

GW: Since we last spoke in 2014, AIS has commissioned a float glass plant in Taloja and a fifth automotive glass plant in Gujarat. What are the highlights of the investment in Taloja and the plant's performance?

Being one of the leading glass manufacturing companies in the country, AIS enjoys 72% market share in the passenger car segment and caters to all major automotive brands, while we have approximately 20% of the total market share of the Indian float glass industry. We recently refurbished our existing Taloja facility in 2018 and it is now fully functional. This expansion gives additional capacities to produce 550 tons of float glass per day and we have seen an increase in our top client base by 60% in FY18-19, in the architectural segment because of this.

Due to the Taloja plant, we are able to serve customers more efficiently, with a better product mix. As AIS has deep penetration in the rural and suburban area, this plant will further help us grow in the architectural segment in the coming years.

GW: And the plans for the new automotive glass plant in Gujarat?

We have started work on our fifth automotive glass plant - a greenfield project in Gujarat - mainly to service the requirements of the Maruti Suzuki plant in Gujarat. It will be operational in this financial year. Our Gujarat project is a state-of-the-art automotive glass plant with the latest global technologies and the ability to manufacture all value added glass products for automotive requirements. AIS will make an investment of up to 600 Crores in this project in two phases. The plant will have capacities to produce 2.4 million car sets per annum. Our Gujarat plant will further strengthen our scale, flexibility and ability to seamlessly service customers across India.



AIS's fifth automotive glass plant is a greenfield project in Gujarat.

This investment is in line with the Make in India initiative, launched by the Government of India. As a result, AIS will further expand its footprint across India with manufacturing plants and advanced sub-assembly units across multiple locations in the country.

GW: Now boasting 13 plants/sub-assembly units, what are AIS's current manufacturing capacities?

We currently have four auto glass plants in India in Bawal, Chennai, Roorkee and Taloja. We are coming with a new automotive glass manufacturing plant in Gujarat that will add up to 2.5 million car sets to our present capacity.

We now have a total capacity of 5.9 million laminated windscreens and 4.3 million tempered car sets. Post Gujarat plant operation, our capacity will be 8.3 million windscreens and 6 million tempered car sets. The growth will be sustained by further automating the process and initiating high value improvements.

GW: Following this significant investment, what is AIS's position in the market and how well-positioned is the company to be competitive going forward?

As India's leading integrated glass manufacturing company, AIS delivers top-of-the-line products and solutions through its three strategic business units for automotive glass, architectural glass and consumer glass. AIS is a pioneer in the automotive glass industry in India, with over three decades of proven leadership in technology, scale and QCDDM (Quality, Cost, Delivery, Development, Management). AIS is the only automotive glass company in the country to have received the prestigious Deming Application Prize in 2007.

Over the years, AIS Auto Glass has expanded from a single location manufacturing company into one with multiple production and assembling facilities across different regions of India. Today, we have four state-of-the-art production facilities at Bawal (Haryana), Roorkee (Uttarakhand), Chennai (Tamil Nadu) and Taloja (Maharashtra).

AIS offers unmatched location flexibility to its customers, with multiple plants spread across the country, which run at optimum capacity and have the capability to make products in line with customer requirements. This will be further bolstered with the addition of the aforementioned greenfield facility in Gujarat, with the capability to produce the entire auto glass range.

With warehouse-cum-sub-assembly units in Gujarat, ▶



Pune and Bangalore, supported by a stocking facility in Gurgaon, AIS mitigates any disruption in the supply chain by being close to customers, with each warehouse maintaining adequate inventory to manage for any contingency.

The widest range of glass products available in the automotive sector in India today is from AIS and includes not just laminated windscreens and tempered glass for sidelites and backlites but also a host of sub-assembly and value added products like de-fogger glass, acoustic glass, encapsulated glass, head-up displays etc and innovative products like plug-in windows, water-repellent glass and rain sensor windscreens etc.

AIS is a dominant brand covering the entire spectrum of the automotive industry, which includes leading OEMs like Maruti Suzuki, Hyundai Motors, Tata Motors, Mahindra & Mahindra, Toyota Kirloskar, Honda Cars India, Volkswagen India, Ford India, Skoda Auto and Fiat India.

GW: Does AIS plan the construction of any further facilities or major upgrades?

The ongoing major investment in Gujarat will be completed in two phases and we are focussing towards the completion of this project... hence there may not be any other further major investments in the near future. However, we are always exploring possibilities for growth and may consider investing, if any good opportunity comes at an appropriate time.

GW: What are the main criteria for selecting suppliers of technology to support your investments?

Selection of technology depends on various parameters like the requirement of a particular material for a specific time in the future, productivity, flexibility to produce different products, cost of production etc. We have an in-house engineering function that designs and manufactures highly customised machines, suitable for our processes.

GW: What are good examples of significant recent product developments?

For architectural glass, highlights include products like gold, DLE, switchable glass, fire-resistant glass and other products with broad features based on the market

requirement. Our focus is on value-added products that offer thermal comfort, noise reduction, reduction in fuel consumption and design/visibility enhancement, along with functional displays.

Across all OEMs, reduction in car weight is also of prime importance and hence ultra-thin windscreen glasses with tougher quality specs are expected to be used in future car models.

We have also introduced value-added products like solar glass, acoustic windscreens, IR Cut PVB windscreens, IR Cut acoustic PVB windscreens and UV Cut glasses for entry level Indian passenger car models. Currently, these high end technology products are available only in niche segments.

Given below are some details about our value added products in automotive glass:

IR Cut windscreens and solar control glass for sidelites and backlites: IR Cut laminated glass is built with a special PVB interlayer.

This interlayer has a special additive that blocks the sun's heat and prevents it from entering the car. Solar control glass used for sidelites and backlites has a metal oxide ingredient that blocks the sun's heat. So, even if the car is parked under the sun, it ensures faster cooling of the cabin to a comfortable temperature. It improves the air conditioner's performance due to less heat transfer from outside and also ensures longer life of seat covers due to reduced heat.

Acoustic windscreens for cars:

A high performance car glass that is made by sandwiching two panels of glass with a special PVB interlayer, having a high dampening material. This blocks high frequency sound waves and dampens acoustic and mechanical vibrations. It significantly reduces noise and vibrations inside the car cabin, thereby reducing driver fatigue.

Head-up display glass:

Dashboard information is projected right on the windscreen through an in-built projector in the car's console. The glass is built with a wedge-shaped PVB film that is thin towards the bottom and thick on the top. This provides better clarity and avoids a blurred image that usually occurs in a standard windscreen.

Water-repellent glass for side windows: This glass is built with a special hydrophobic coating



AIS refurbished its existing Talaja float glass facility in 2018.

that increases the angle of contact to prevent water from spreading onto the surface. It enables a safer driving experience during rain due to better visibility through the side door glass.

Heated windscreens: This product uses very fine, almost invisible, heatable tungsten wires that are embedded on the PVB interlayer film and are heated by the car battery. It helps in defogging and the removal of snow deposits.

GW: What can you tell us about the company's consumer facing brands, AIS Windows and AIS Glasxperts?

Windows have come a long way from being mere holes-in-walls that let light and air into a house. Today, they are a very important element in the overall architecture of the house and play a key role when it comes to the interiors. Advances in glass technology, frames and manufacturing techniques mean that a window offers almost limitless permutations and combination solutions to create ideal interiors.

AIS Windows offers end-to-end professional window solutions, bringing together the material of your choice – be it upvc, wood or aluminium – with the best in glass products and hardware fittings. We offer 360° solutions, including design consultation, glass and frame selection to installation and most importantly, post-installation support.

With the right choice of design and functionality, modern windows can truly make any house a contemporary landmark, ensuring comfort and peace for the people who live within.

AIS Glasxperts is a full service offering from Asahi India Glass Ltd (AIS), bringing together an integrated approach and specialised knowledge in glass and allied products and services. They help meet customer needs for modern, eco-sensitive aesthetics with a full spectrum of world class, high quality, branded glass products, fittings and systems with assured safety and hassle-free services. They provide complete glass, window and door solutions for aesthetic, safety and security, energy efficiency, acoustic and privacy needs.

GW: In general, how is the automotive glass sector performing in India?

Demand for automotive glass across the segments – passenger vehicles, commercial vehicles and three wheelers - increased during the 2017-2018 financial year, although sluggish performance was recorded in 2018/19 due to the introduction of a goods and service tax. Demand has subsequently improved again, in particular for value-added products.

AIS maintains a >72% share of business in terms of ▶

the passenger car sector and is the market's dominant player for commercial vehicle glass.

GW: And the architectural glass sector?

The overall architectural glass industry in India manufactures 180,000 tonnes of glass per month and is estimated to be at Rs6200 Crores. The processed glass industry can be estimated at Rs1100 Crores.

AIS is the second largest company in the float glass sector and the largest in terms of processing. The sector has been badly affected in recent years because of a slowdown in the real estate and construction sectors.

However, the real estate industry is already showing signs of revival on the back of Government initiatives and is projected to reach \$180 billion by 2020, offering huge potential for growth. The latest Government proposals, such as the development of 100 smart cities, as well as its focus on roads, railways, manufacturing hubs etc, are also expected to boost opportunities for growth in this segment. The ongoing shift towards 'green' buildings will only further push demand for high performance glass, opening up a huge opportunity for expansion in the architectural sector.

With signs of lower interest rates, the construction sector is expected to pick up shortly. The best part in

this cycle could be the increasing awareness and shifting preferences of consumers towards high performance, value-added glass products and services. This is a welcome shift and AIS is well poised, with its product portfolio and deeper penetration, to make the most of this shift in market preferences.

GW: Has knowledge increased in recent times in terms of architectural specifiers in India and the use of glass as a facade? If so, will this trend continue?

Due to its fragile nature, the use of glass to bring natural light into buildings was previously restricted only to windows and other small installations. The development of new construction techniques, value additions and processing conducted on glass have made this material strong and durable. As a result, it is now considered a viable choice for more complex structural requirements.

Glass is now being used for facades on an unprecedented scale to create remarkable designs and yield eco-savings. The use of glass in facades gives a dramatic effect to the building. Glass panel facade systems offer versatile, high performance coverage, with a wide range of stylish design possibilities.

It is one material that is aesthetically sound, eco-friendly and economically viable. It is a smart, adaptable and versatile material, lending itself to endless possibilities, both in terms of design and functionality, across exterior and interior applications. All in all, glass stands in a league of its own. The reason for this is simple to understand... glass enhances the visual appeal of buildings, adds a touch of modernity and elegance and helps the building gain recognition for its stylish and luxurious environment-friendly 'green' architecture.

GW: Considering challenges to control both manufacturing costs and levels of cheap imports from China and the Middle East, does India represent a

cost-effective manufacturing hub for flat glass producers in the long-term?

Cheap imports are always a concern for the glass industry in India, due to a huge variation in cost structures. For example, the cost of energy in India is almost double that of some countries exporting glass to India. In the Middle East, the cost of energy is one tenth of that in India. So it will always be a challenge to compete with some of these countries, which have a huge advantage in their input costs. To offset these advantages, Indian glass manufacturers provide a lot of value addition in terms of packing, sizes, flexibility to produce customised products, new product development, shorter lead times, better quality and service and much more to offset the cost factor and attract consumer attention towards other important benefits that the products offer.

GW: What did it mean to you to serve as President of the All India Glass Manufacturers' Federation (AIGMF) between 2014 and 2016?

It was indeed a pleasure and I feel proud to be associated with such a respected body in the industry. I hope I have been able to do justice to the position and helped the body grow positively and bring it closer to achieving its vision. I have been honoured to serve the AIGMF in the past and will be ready to take up the mantle of any responsibility that comes my way to bring about a positive change in the future as well.

GW: Did your presidency succeed in further emphasising the importance of flat glass activities beneath the overall AIGMF umbrella? If so, has this trend continued since 2016?

Flat glass participation under the AIGMF umbrella has improved significantly and is now much more active compared to the period before 2014. Wider issues related to the glass industry are discussed to represent the industry at various forums to improve overall industry efficiency. We are working closely with organisations like GRIHA, NBC, QCO and BIS etc in order to be a part on their endeavour to create an ideal, sustainable environment. ●



Sanjay Ganjoo was proud to be AIGMF President between 2014 and 2016.

Further information:

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