

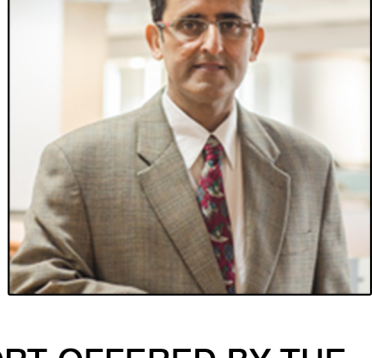
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AIS HAS PIONEERED INNOVATIONS IN GLASS PROCESSING TECHNOLOGY

Established in 1984, Asahi India Glass Ltd (AIGL) is India's largest integrated glass solutions provider. The company's footprint today spans the entire spectrum of the automotive and architectural glass value chains.

VIKRAM KHANNA, COO – ARCHITECTURAL INSTITUTIONAL BUSINESS, CONSUMER GLASS, CMO AND CIO, ASAHI INDIA GLASS LTD responded to CONSTRUCTION OPPORTUNITIES' queries on the role of glass as a viable building material and offered glimpses of the company's unique offerings.



BRIEFLY GIVE US AN OVERVIEW OF THE SUPPORT OFFERED BY THE GLASS INDUSTRY TO THE CONSTRUCTION, REAL ESTATE AND INFRASTRUCTURE SECTOR?

Due to its fragile nature, the scope of using glass to bring natural lit buildings were earlier restricted only to windows and other small installations. However, the developments in new construction techniques, value additions and processing activities being done on glass have now enhanced the material's strength and made it durable. Glass is today considered a viable choice for more complex structural requirements. Moreover, the material is now used for facades on an unprecedented scale to create remarkable designs and yield eco-savings. Use of glass in façades gives a dramatic effect to the building. Such glass panel façade systems offer versatile, high-performance coverage, with a wide range of stylish design possibilities.

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

TELL US OF YOUR PRODUCTS WHICH COME INTO USE IN THE INFRASTRUCTURE AND CONSTRUCTION SECTOR?

We offer a wide range of products to meet the varied demands of infrastructure and construction projects. Our product line includes – AIS Clear (clear float glass), AIS Tinted (heat absorbing glass), AIS Mirror (distortion free mirrors), AIS Décor (lacquered glass in vibrant colours for interiors), AIS Krystal (frosted glass), Ecosense (High Performance Energy Efficient Reflective Glass -Soft Coat), AIS Sunshield (Heat Reflective Glass), AIS Opal (Heat Reflective Glass -Hard Coat), AIS Opal Trendz (Patterned Heat Reflective Glass - Hard Coat), AIS Stronglas (Tempered Glass), AIS Acousticglas (sound resistant). Apart from these ranges, we also offer our unique range of AIS Securityglas which is an intrusion resistant laminated glass with 1.52 mm PVB interlayer and AIS Valuglas which is a heat strengthened product with 1.14 m PVB interlayer. The Dupont Sentry Glass interlayer in our AIS Securityplus product makes it 5 times stronger and 100 times stiffer than conventional laminating materials. Catering to the advanced modern 'Smart Glass' requirements, we have our AIS Swytchglas which turns transparent to opaque and vice versa with the touch of a button.

VERY SPECIFICALLY WHAT IS THE MATERIAL ADVANTAGE OFFERED BY YOUR COMPANY'S PRODUCTS?

Glass has a list of inherent benefits as a building material, wherein the main advantage is its 100 per cent recyclability. The source of making glass is Silica sand, which is available in abundance. This reduces the dependency and risk on utilising the depleting raw material resources. Furthermore, glass has the ability to offer a structural strength that is comparable even with a brick wall and also enable sound insulation and fire rating.

A key benefit of the product is its unique property of letting in natural light which is so essential for enhancing the living condition inside a building structure. Studies have suggested that more natural daylight in hospitals have actually expedited the recovery time in patients. In addition, as the material occupies less space, it gives more maneuverable space inside the building and also marginally brings down the dead load weight of the building. Also, the embodied energy of glass is much lower when compared with aluminium, cement or paint. The improvements in manufacturing process and the long shelf life offered by glass materials, once it is installed in a building, has further enhanced the scope of utilising glass as a reliable and durable building material.

WHAT IS THE LIFE EXPECTANCY OF YOUR SOLAR CONTROL GLASS PRODUCTS AND WHAT KIND OF MAINTENANCE WILL BE REQUIRED TO KEEP ITS EFFICIENCY INTACT?

Glass, by its very nature, is durable, tough and easy to maintain. By following and practicing a few simple guidelines the product will remain clean and brilliant for many years. However, the glass panels should be cleaned after installation (after completing the project) – labels, cork inter-layers and dirt should be removed and needs to be washed with water. Though glass panels need to be regularly cleaned with water, sometimes a bit of neutral detergent can also be added in the process. The frequency of cleaning however depends on the structure's surrounding environmental conditions and pollution levels.

Coated glasses have a metal oxide coating that is applied to the material. These coatings are highly resistant and durable. No particular precautions need to be taken when the coating is positioned on the inside of the insulating glazing unit –i.e. when the material is in contact with the air or gas layer. In single glazing or when the coating is located outside the insulating glazing unit (i.e. external side or internal side of the building), the basic as well as the special cleaning regimens are applicable. However during this process, it needs to be clearly understood that a transparent and very thin metal surface is being washed.

WHAT ARE THE KEY SELLING POINTS OF YOUR PRODUCTS WHICH HELP YOU TO WIN CONTRACTS FROM PROJECT CONTRACTORS IN INDIA?

The team at AIS assists the customers in glass selection. The AIS 4G Solutions include glass selection, glass product, glass processing and glass integration and thereby gives clients customised solutions. In addition, the technical team of AIS conducts building simulations to help architects and consultants to select the right building material and on improving energy efficiency. Ecosense from AIS is a high performance glass portfolio available in a unique range of 33 nature-inspired shades. The product is available in three categories – Enhance (solar control range), Exceed (solar control low-E range), and Essence (low-E range). The products helps developers and their architects by – allowing passage of light through window or façade while radiating, absorbing and reflecting away a large part of near range infra-red heat – ultimately resulting in bright and cool indoor spaces

WHAT ARE THE MAJOR APPLICATION AREAS FOR YOUR PRODUCTS – COULD YOU CITE A FEW EXAMPLES WHERE THEY ARE USED? NAME A FEW OF YOUR CLIENTS FROM THE INFRASTRUCTURE, REAL ESTATE AND CONSTRUCTION SEGMENTS?

Different applications call for different glass products, as each form of application has its own unique demands. Even while the glass products used are same, the product has to meet different needs while it is applied for interior or exterior glazing purposes. Hence, to meet such requirements, AIS offers a wide range of products to meet the distinctiveness in application. The range of internal glazing solutions from AIS includes a variety of specialised and value-added products that not only turns the space beautiful but also offers adequate comfort. Today, glass can be used for a variety of applications such as in the design of separators and mirrors, table-tops, interior doors, customised furniture, stairways, floors and much more. At a time when architects, builders and customers are all looking for ways to reduce energy consumption, improve safety parameters and enhance the aesthetics of commercial and residential spaces, glass presents itself as a viable, attractive and economical option. And as India's largest integrated glass company, AIS is pioneering the development of new and more advanced products to explore the new possibilities in the glass industry. The structurally sound and eye pleasant external glazing solutions from AIS combines superior thermal properties with enhanced strength. The product is ideal for use in doors and windows, skylights and facades. These products are technically better and provide greater value when compared to traditional materials. In the architectural segment, AIS is one of the leading brands covering the entire spectrum of the architectural industry. The Wave Group, Tanglin, K Raheja Corp, RNA Corp and DLF are a few of our architectural glass clients.

WHAT IS THE COMPANY'S APPROACH TOWARDS R&D ACTIVITIES AND HOW HAS THIS CONTRIBUTED TOWARDS YOUR DEVELOPMENT?

Our company has pioneered innovations in glass processing technology. We have introduced technology to develop both single-glazed and double-glazed products with the best 'green' parameters. This is giving developers and their architects' a wider choice and expanded the ability to explore new possibilities. These solutions contribute to enhancing the aesthetics, efficiency and economics of commercial and residential spaces as against traditional building materials.

We continuously study the Indian climatic and market condition to develop new products. The company also focuses on improving the existing products on different parameters. In the last four years, AIS has developed more than 30 products in soft coat – Ecosense Range. We have recently launched AIS Swytchglas which is a special glass that turns from being transparent to translucent, and vice versa, with the press of a button. Made using Polymer Dispersed Liquid Crystal (PDLC) film, and operable with both remote and manual control, it ensures instant privacy in contemporary form. The product is ideal for personal spaces, office cabins and modern conference rooms. Apart from our focus on developing new products, AIS continues to focus on increasing the process efficiencies and achieve waste reduction.