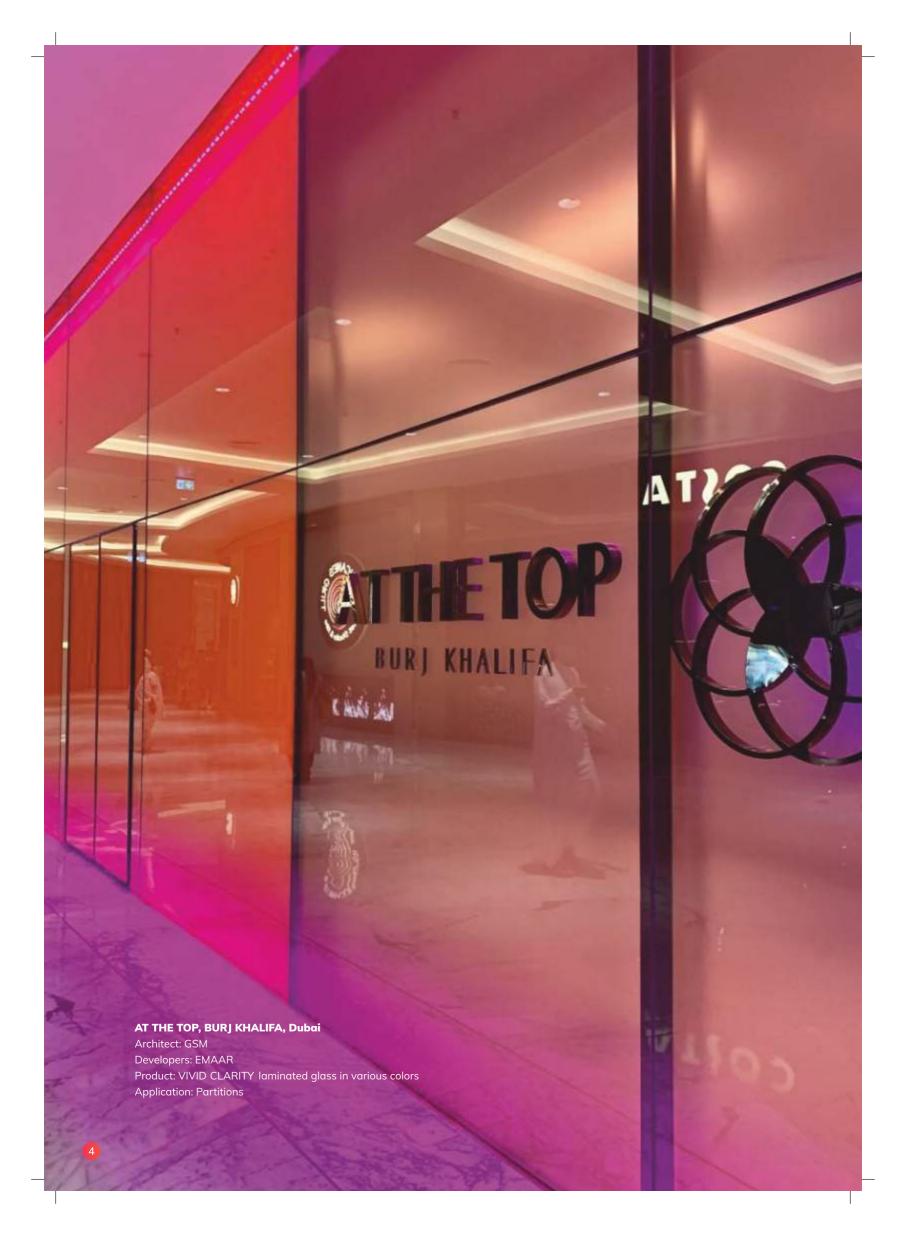




INTRODUCTION Bringing extraordinary visions to life	05
DIGITECTURE® Digitally printed glass	06
VIVID Coloured laminated glass	20
MESH Mesh laminated glass	32
INVISI-G Anti-reflective glass	44
VENEZIA Venetian blinds integrated glass	54
GEORGIAN Georgian bars integrated glass	64
WHO WE ARE Know more about world's leading architectural glass processors	75





ACHIEVING THE IMPOSSIBLE!

Architecture is no longer limited to bricks and cement. It has evolved far beyond our imagination. Today, you can create building façades that work like large television screens or even print gorgeous patterns and textures across them. With glass, there is no end to the possibilities. At FG Glass we think that the architectural facades and interior spaces are the most prominent and lavish places to show your creativity, for the world to see and for you to enjoy personally. Our Creations range brings every dream to life with glass panels that are unique not just in their looks but also in performance and functionality. Committed to innovating and improving, FG experts scoured international markets to find glass that allows you to bring even the most daring architectural feats to life. Our Creations line offers unique products that come in a wide range of colours and designs and can even offer visibility on demand. What more could you possibly want?



DIGITECTURE®

In collaboration with



One of our most revolutionary products, DIGITECTURE® is glass printed digitally with ceramic based inks and then heat-treated for excellent durability. We can help you create magnificent façades that blend in with the surroundings seamlessly or make a statement on every block.

You have the power and flexibility to create architectural beauties that capture your imagination on glass. With DIGITECTURE®, you can print virtually anything on-demand and in real-time. Welcome to the future.

DIGITECTURE® TYPES







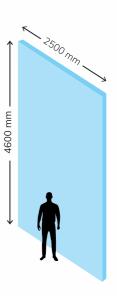


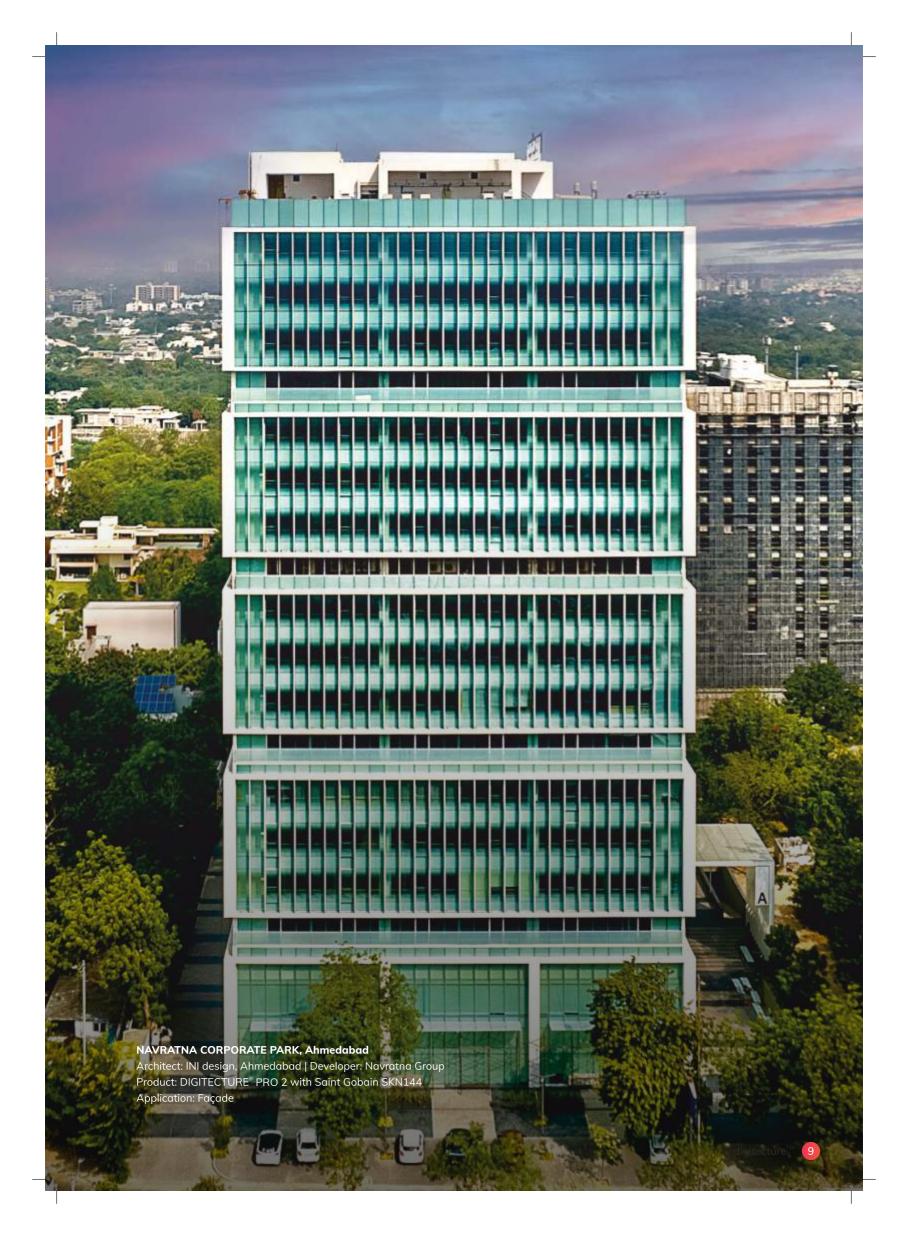


^{*} Not applicable for monolithic glazing. Only possible when made into an insulated or laminated glass assembly.

DIGITECTURE® SIZE

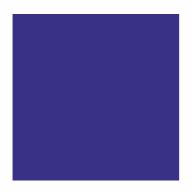
DIGITECTURE® is available in a wide size range, from minimum 200 mm X 300 mm to maximum 2500 mm X 4600 mm (4 mm and above)* enabling unmatched design flexibility and performance.





A LIMITLESS CANVAS TO PAINT

What do you want to imagine on your facade?



FLOODFull flood print



GEOMETRYGeometrical pattern prints



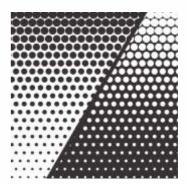
STONEStone image prints



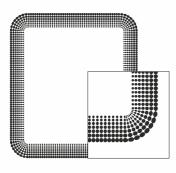
WOODWood image prints



ILLUSIONIllusion image prints



GRADIENTGradient pattern prints



BORDERBorder Prints



CUSTOMCustom design print



PRIVATE RESIDENCE at CAMELLIAS, Gurugram

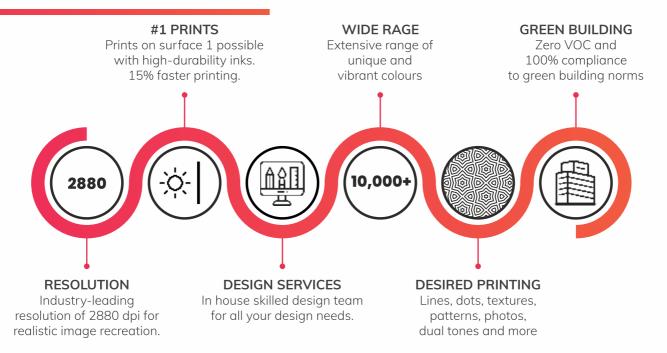
Developer: DLF Limited | Product: DIGITECTURE® SOLAR | Application: Interiors



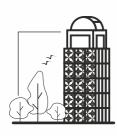
AYYANNA IT PARK, Hyderabad

Architect: Aslam Architects | Developer: Ayyanna Infra Developers Product: DIGITECTURE $^{\circ}$ FIRST on #1 with Saint Gobain ST767 on #1 | Application: Façade

WHY DIGITECTURE®

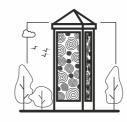


UNIQUE SELLING POINTS



LIFE-LONG PRINT DURABILITY

Our 100% UV-stable inks are guaranteed against color fading. This is due to the unique ceramic-based ink composition that is completely devoid of plasticizers.



PRINTS ON SURFACE ONE POSSIBLE

Since the inks are heat-treated post printing, they become completely fused with the glass surface and can even be installed facing the exterior.



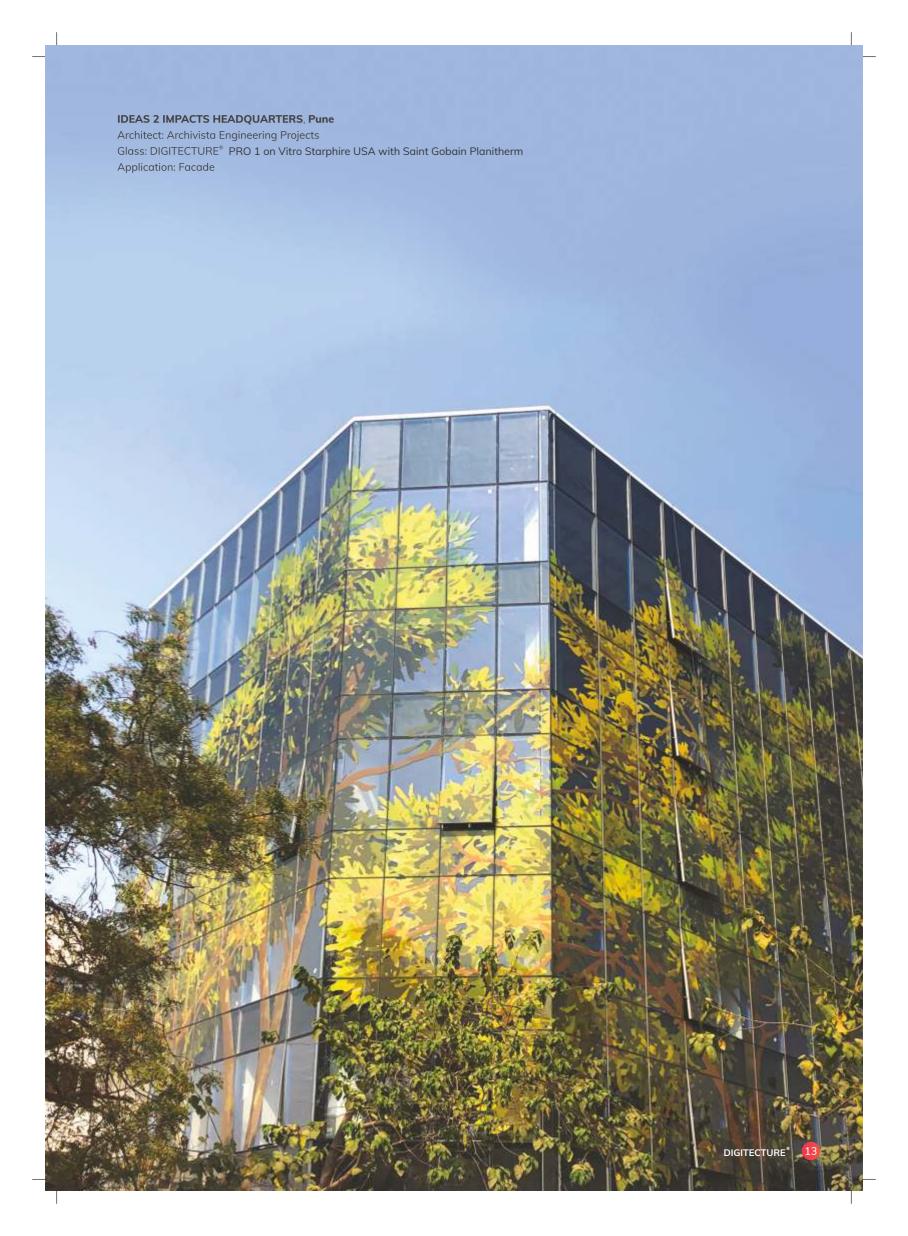
EASY PANEL TRACKING

Our advanced panel tracking feature prints a unique alpha-numeric code on every glass panel facilitating easy replacements at a later date.
Additionally, each code is uniquely linked to the panel design in our database and can be retrieved anytime.

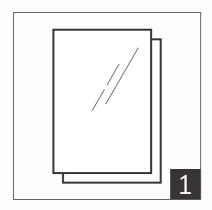


CREATE PRECISE BORDER FRITS

digitecture[™] can also be used to create perfectly opaque borders to conceal the otherwise unsightly spacer, butyl and silicone perimeter. This helps create neat and orderly glass-to-glass joints and is a great option for glazing in high vision areas, such as lobbies.



HOW IT IS MADE



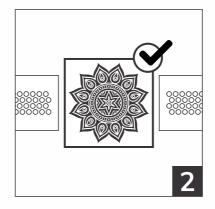
Choose Your Glass

Printing is possible on practically any glass type, be it clear, tinted or coated.



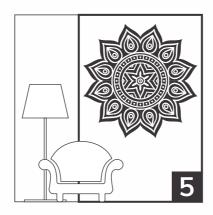
Heat-Treatment

The printed glass is then heat-treated in our furnace for 100% durability.



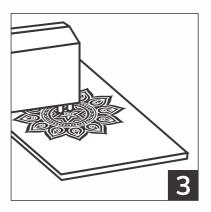
Select Your Design

Choose any style from our exhaustive library or create one of your own.



Final Product

Your bespoke glass is now ready to amaze the world!



Printing on Glass

Your selected design is then printed on glass by our revolutionary printing machine.

100%

better resolution (2880 dpi) than the current industry standard

2.5 x 4.5_m 80

maximum size

15%

faster printing technology

80_{mm}

maximum thickness (can print glass blocks) 10000+

colours possible

WHERE CAN I USE DIGITECTURE®





Shower cubicles



Skylights and canopies



Entrance doors



Interior partitions



Glass railings



Shop fronts



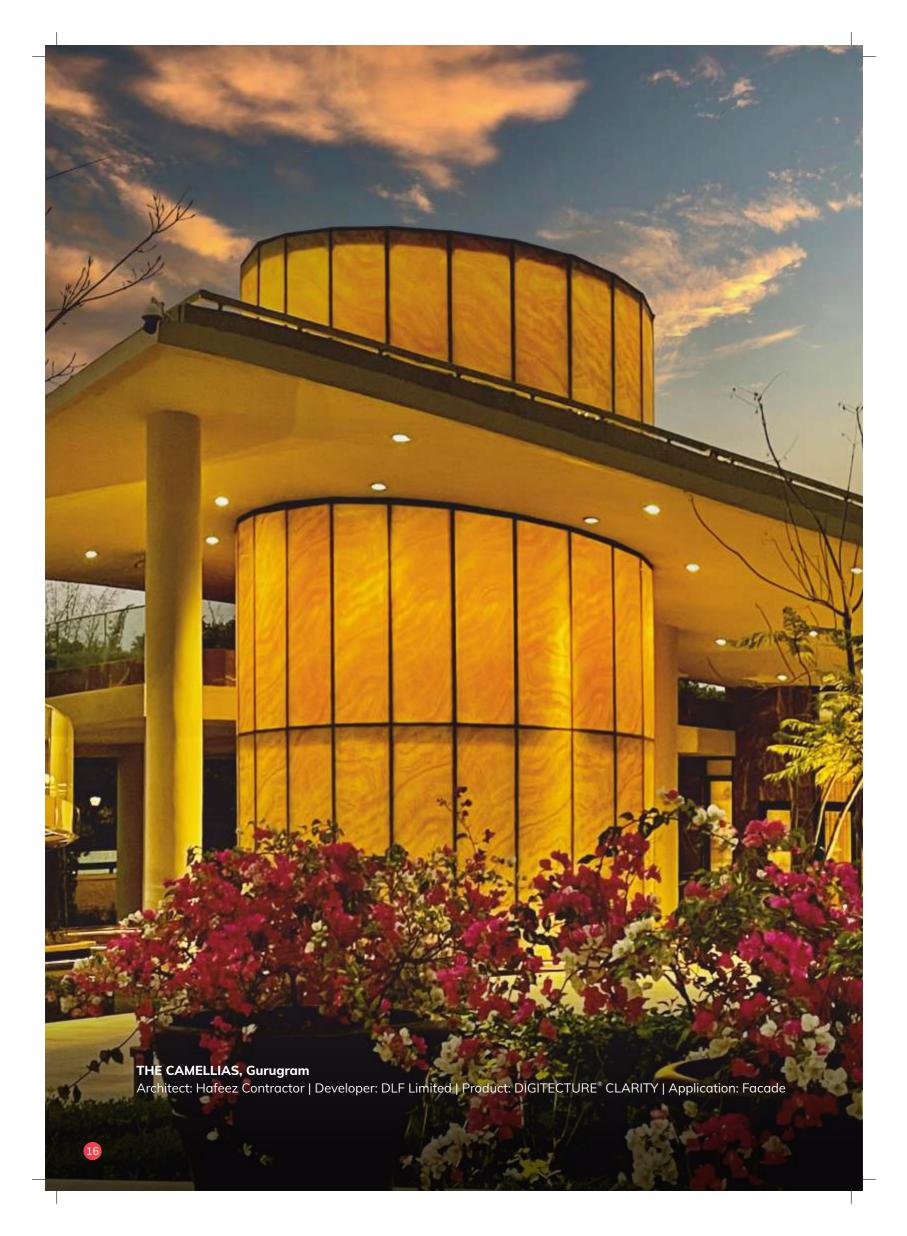
> Glass flooring

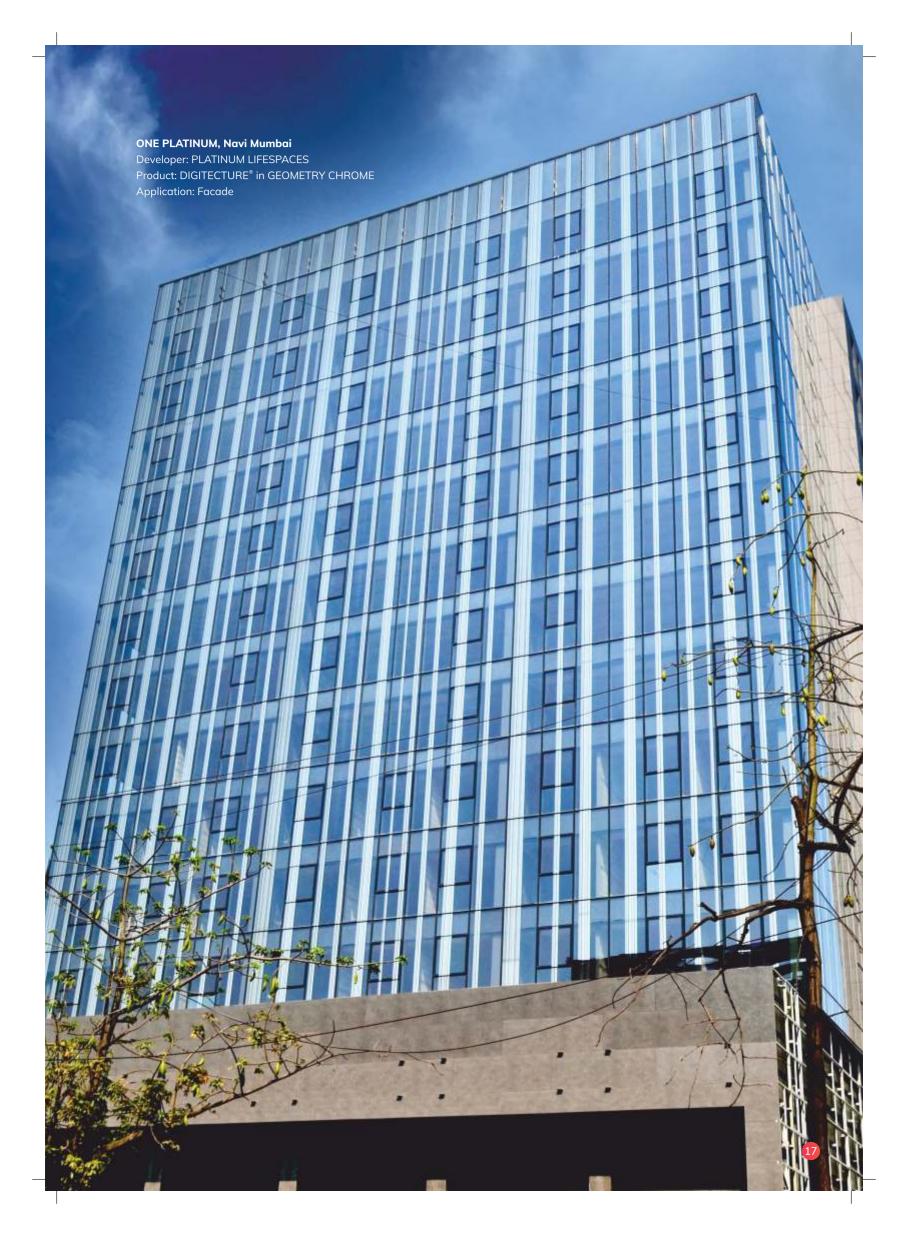


Glass furniture





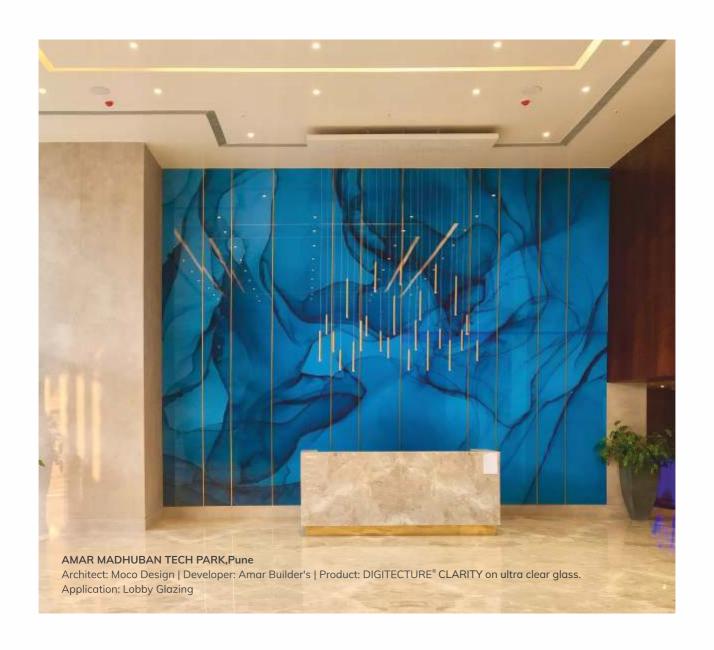




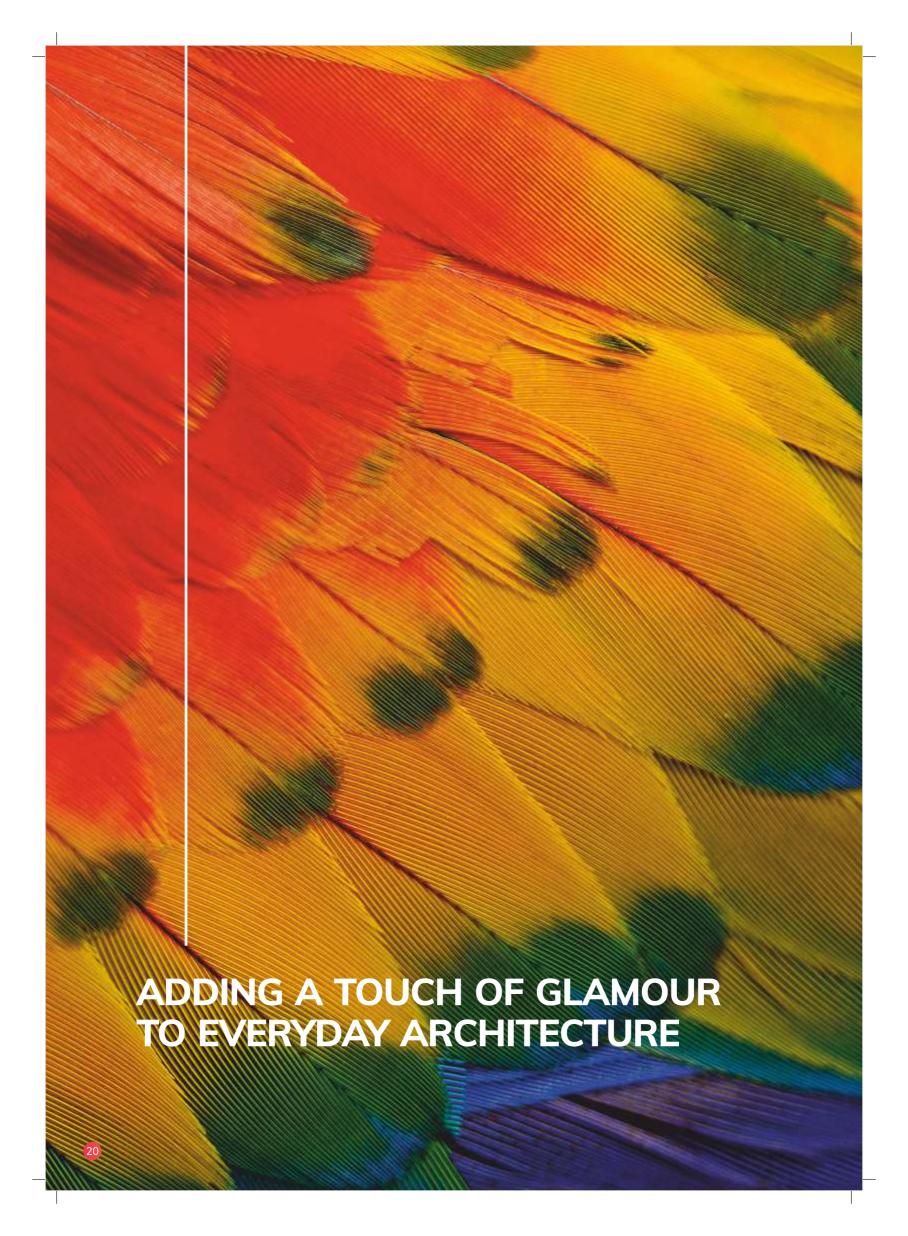
TECHNICAL SPECIFICATIONS

DESCRIPTION	LEVELS
Process Type	Digitally printed glass through extremely precise electromagnetic controlled drives
Glass Types	Clear, extra clear, ultra clear, tinted, solar-control coated, low-E coated
Glass Thickness	3.5 mm to 19.00 mm
Ink Type	Ceramic based inks
Colour Types	Standard RAL shades, metallic (silver, gold), acid-etched, anti-skid
Maximum Resolution	2880 dpi (dots per inch)
Minimum Printable Dot Diameter	0.40 mm
Edge Finish	Arissed, rough ground or super polished
Inks Make	Tecglass, Spain
Compressive Stress (Surface)	30 MPa to 52 MPa (4,300 Psi to 7,500 Psi) - Heat-Strengthened
Compressive Stress (Surface)	69 MPa (10,500 Psi) minimum - Fully Toughened







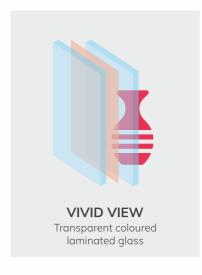






Add a touch of glamour to everyday architecture. Using coloured glass on a facade is often tricky since it reduces transparency and creates a loss of vision. With Vanceva® from Solutia, USA, we provide you with the only glass panels that can offer perfect transparency in practically any colour. Use a colour of your choice to create a stunning partition, façade, skylight or canopy. We work with over 10,000 unique colours with varying levels of transparency, from perfectly clear to completely opaque, that take care of all your architectural needs. You can use our VIVID panels for interiors or exteriors as they have high sound insulation and block 99% UV rays. With this glass, you won't ever have to compromise on aesthetics or performance.

VIVID TYPES

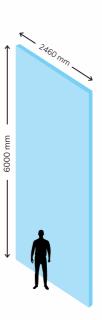






VIVID SIZE

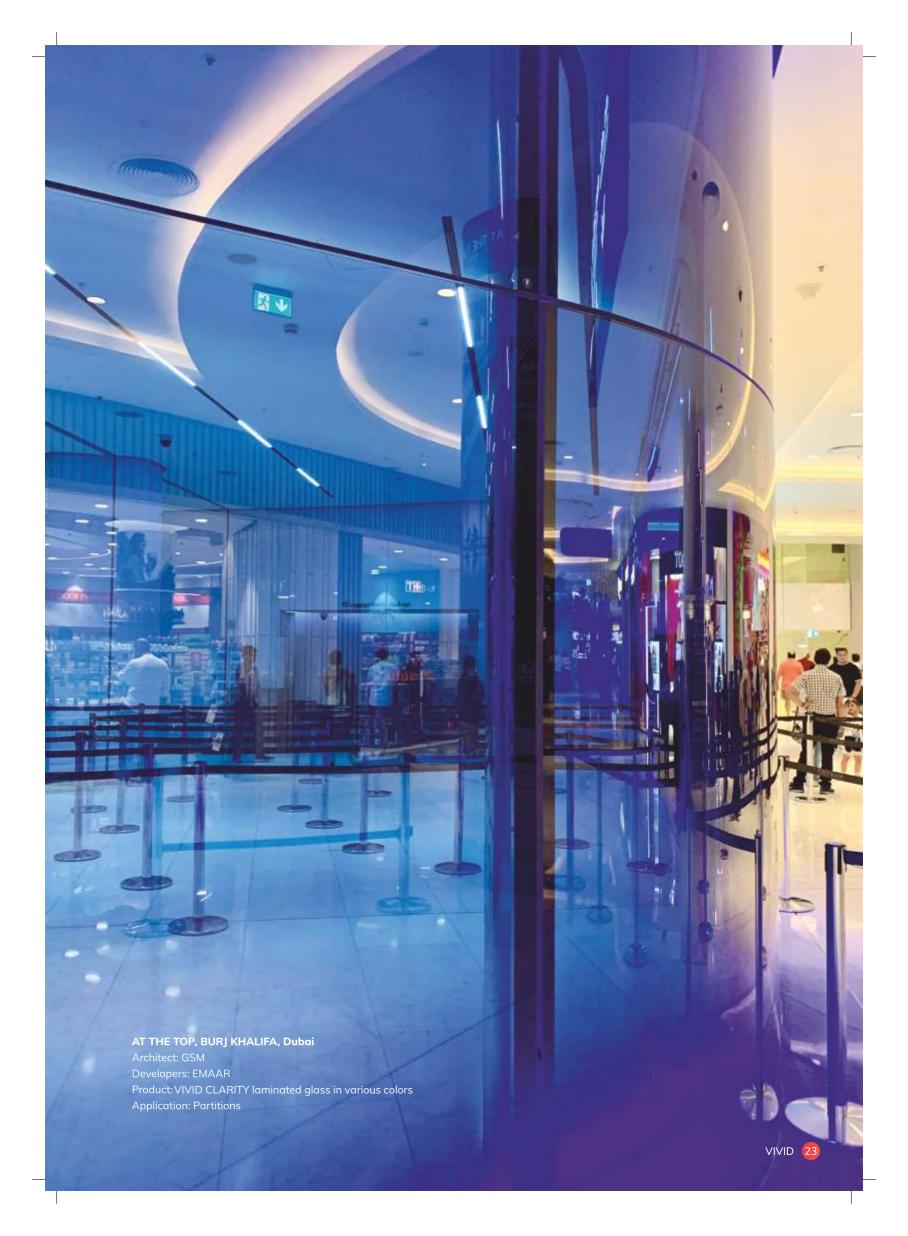
VIVID Coloured Glass is available in a wide size range, from minimum 200 mm X 300 mm to maximum 2460 mm X 3660 mm (4 mm and 5 mm) 2460 mm X 6000 mm (6 mm and above)* enabling unmatched design flexiblity and performance.



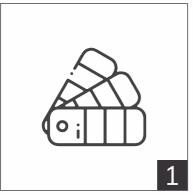


PRIVATE RESIDENCE, Hosur

Product: VIVID laminated glasses in multiple colors | Application: exterior railing

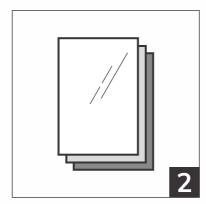


HOW IT IS MADE



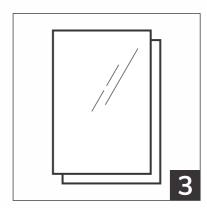
Select Color Shade

Select from wide range of Vibrant & unique shades. Select your shade from: vanceva.com/color-selector



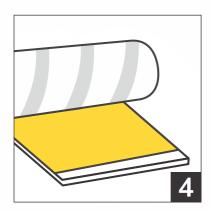
Select Transparency Type

Select the glass you want for e.g.: View, Frost, Absolute



Select Glass

Select Type of Glass e.g.: Clear, Tinted, Solar Control or Low-E



Laminate

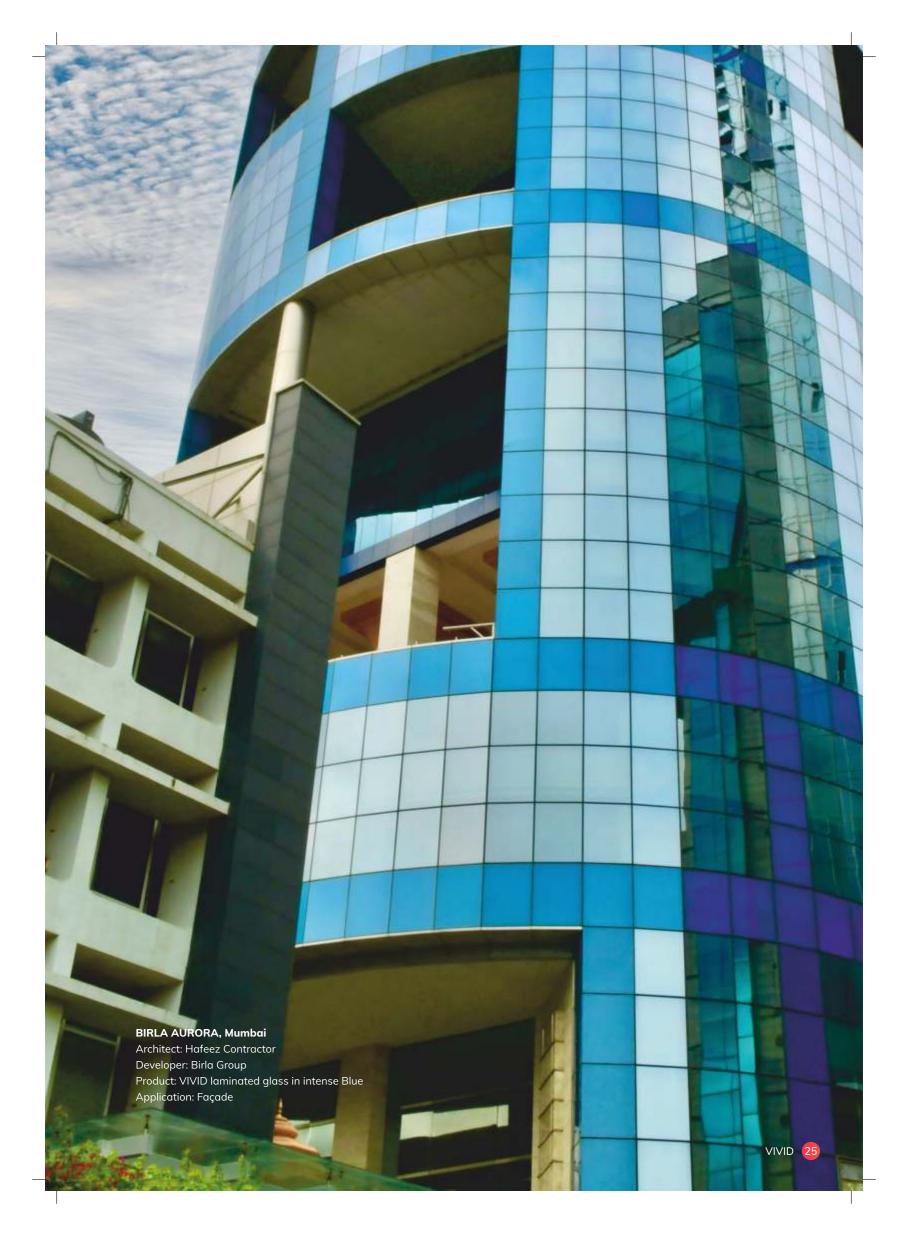
Colored film is sandwiched between the glass and goes for lamination



VIVID Glass is Ready

Your colored glass is ready for application





UNIQUE SELLING POINTS



COLOUR CHOICES

More than 10,000 colours possible



IMPACT PROTECTION

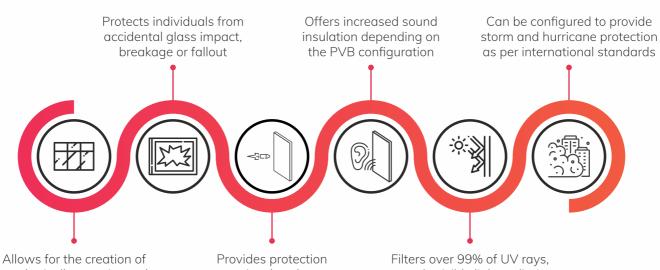
Satisfies the highest criteria for impact safety



SOUND CONTROL

Excellent sound reduction for enhanced comfort

WHY VIVID COLOURED GLASS?



Allows for the creation of aesthetically superior and statement façades and interiors

Provides protection against burglars, bullets and blasts

Filters over 99% of UV rays, controls visible light radiation and reduces solar heat build-up and thermal stress





WHERE CAN I USE VIVID COLOURED GLASS?



Floors



Skylights



Canopies



Curtain Walls



Partitions



Railings



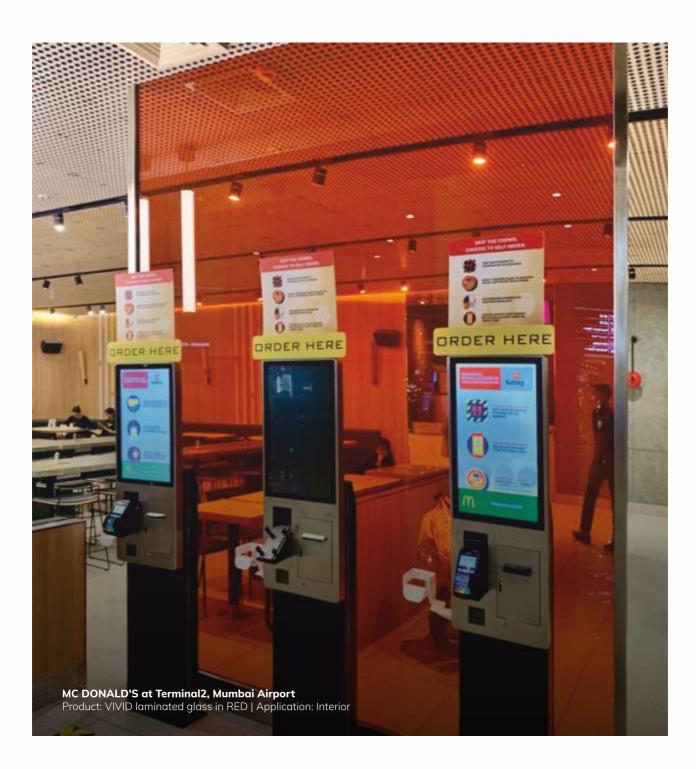
Fixed and Sliding Windows



Suspended and Bolted Façades



Structural Glazing



TECHNICAL SPECIFICATIONS

DESCRIPTION	LEVELS
Process Type	Nip-rolled or vacuum treated followed by autoclaving
Glass Types	Clear, extra clear, ultra-clear, tinted, solar-control coated, low-E coated
Additional Process Compatibility	Ceramic-frit, digitectureTM digital printing, sand-blasting, acidetching, holes, cutouts and notches
Product Enhancement	Can be converted from/to GLAS SHIELD , CURVE SHIELD . FACADE SHIELD , CLIMA COOL , BURGLAR SHIELD , BULLET SHIELD , BLAST SHIELD and FIRE-SAFETY products
Glass Thickness Range	3 mm to 19 mm
Unit Thickness Range	6.38 mm to 100 mm
Edge Finish	Arissed, rough ground or super polished
Colour Type	More than 10,000 RAL colours possible
Transparency Levels	Transparent, translucent and opaque

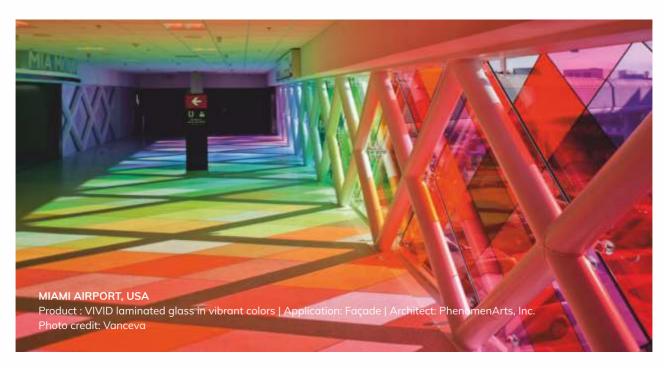


NITIN RUBIX Fabricator: Maruthi Aluminium Product: VIVID laminated glass | Application: Façade

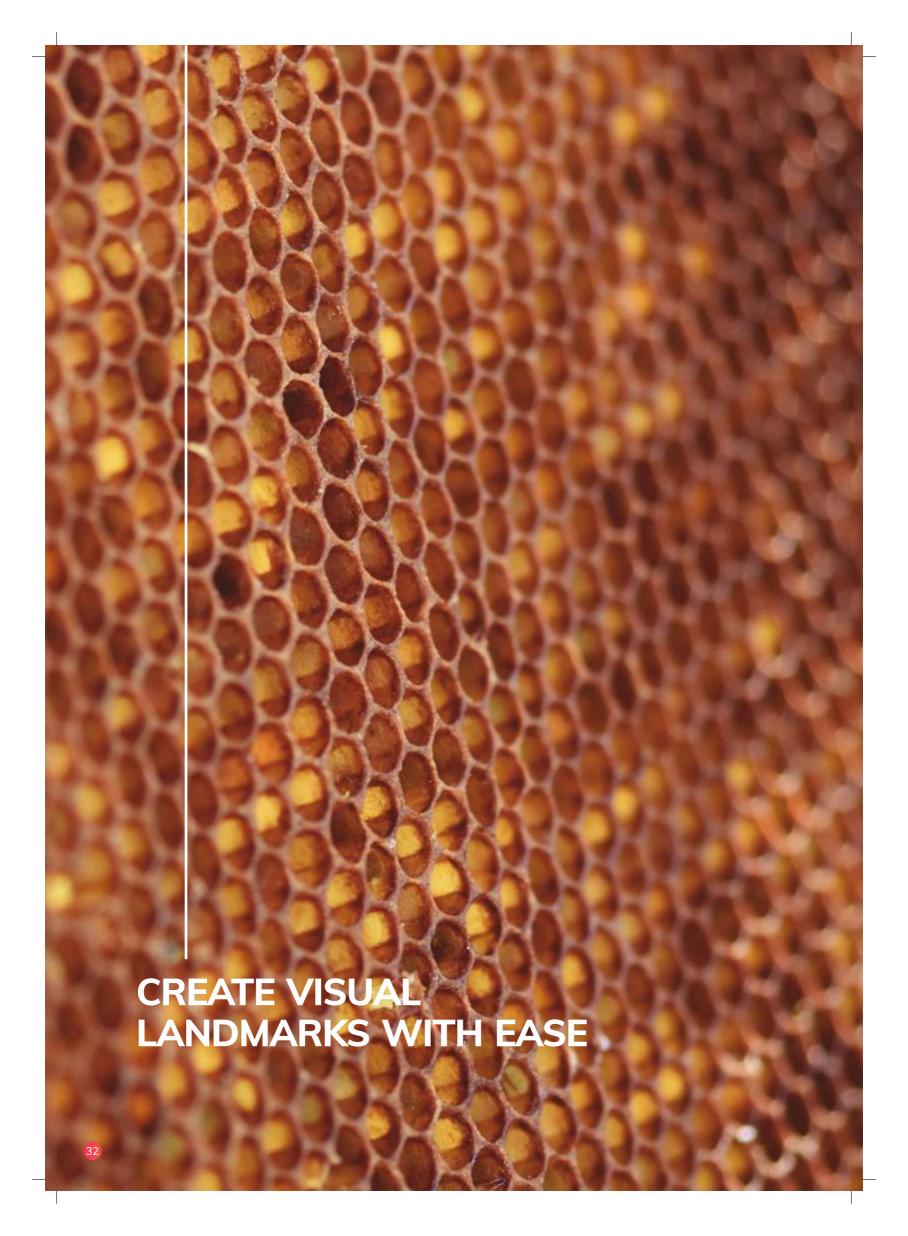


Architect: Thomas Associates | Fabricator: Fabicon Facades
Product: VIVID laminated glass | Application: Façade









MESH

In collaboration with

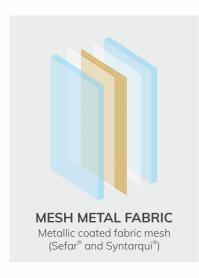


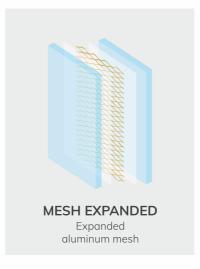


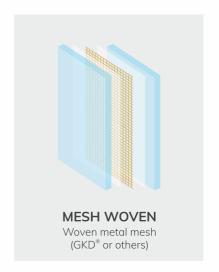


Create visual landmarks with ease. To create mesmerizing insulated and laminated panels, we present our MESH series of expanded metal, woven metal, and metal-coated fabric, With an diverse partner mix in this aesthetically stunning product line, SEFAR® from Switzerland, Syntarqui® from Italy and GKD® from Germany, we can offer your hundreds of mesh types, each playing beautifully with light to create unique optical effects that you cannot achieve with print or non-metallic materials. The mesh also diffuses sunlight, eliminating the need for blinds while cutting down on solar heat gain. Sefar® also offers a one-of-a-kind single-sided metal coating that allows for free expression on the glass exterior without impeding views from the interior. Our MESH series can be produced in laminated or insulated forms depending on the mesh type and the design requirements.

MESH TYPES

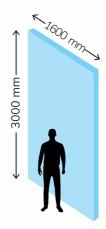






MESH SIZE

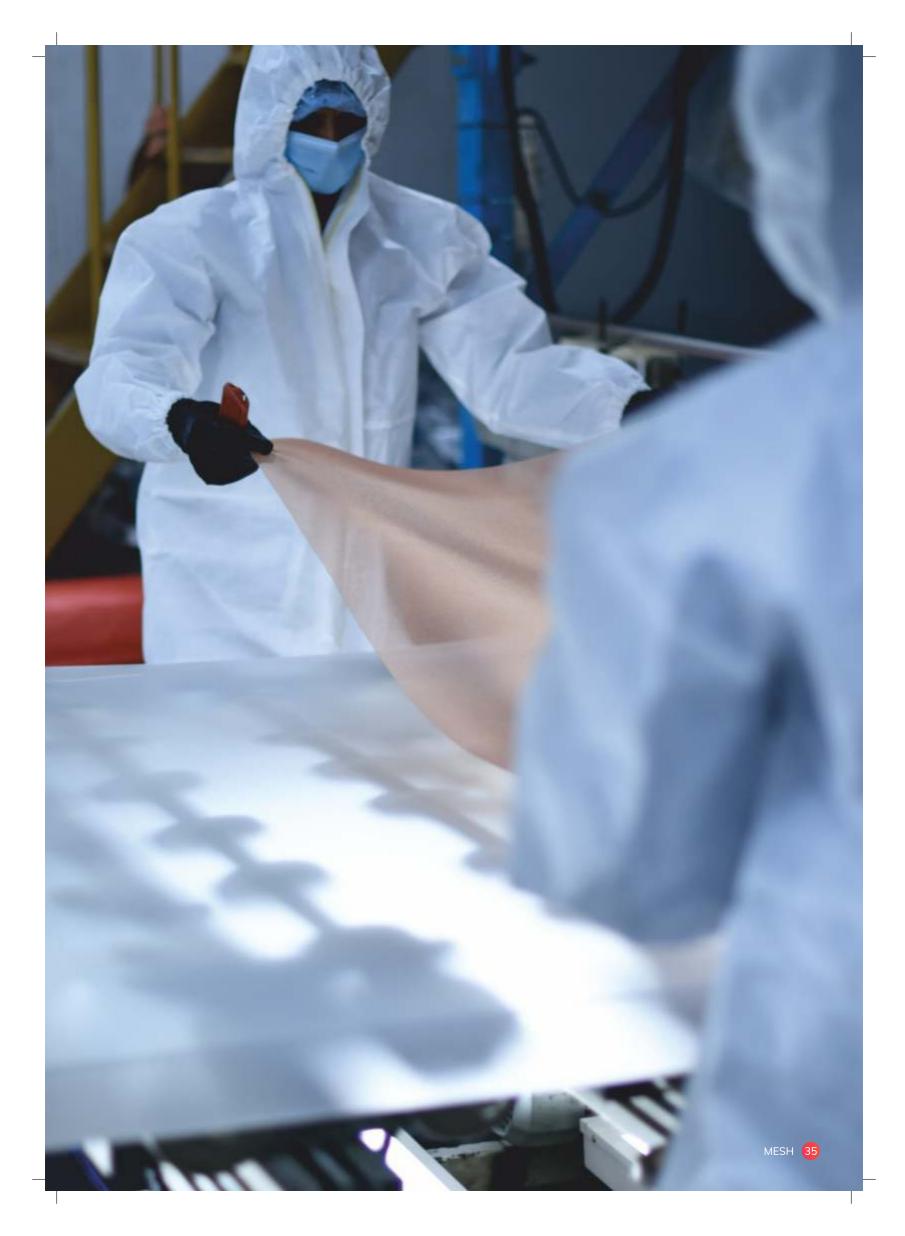
Mesh glass is available in a wide size range, from minimum 200 mm X 300 mm to maximum 1600 mm X 3000 mm (6 mm and above)* enabling unmatched design flexibility without compromising on the performance.



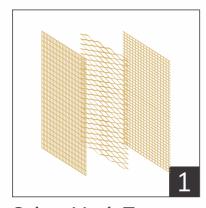


AIRPORT KEFLAVIK, Iceland

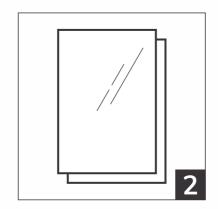
Architect: Andersen & Sigurdsson Architects | Product: SEFAR $^{\circ}$ Architecture VISION AL 260/55, PR 260/55 Copper Application: Façade | Photo credit: SEFAR $^{\circ}$



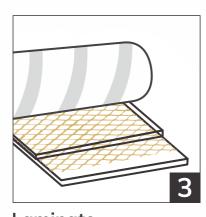
HOW IT IS MADE



Select Mesh Type
Select the type of mesh
Fabric, Expanded or Woven



Select Glass Select glass type you want Clear, ultra clear, tinted, coated



Laminate Selected mesh will be sandwiched between glass and goes for lamination.



Ready

Mesh glass is ready for application



UNIQUE SELLING POINTS



MAINTENANCE FREE

Never before seen aesthetics in maintenance free form



IMPACT PROTECTION

Satisfes the highest criteria for impact safety



SOUND CONTROL

Excellent sound reduction for enhanced comfort



BIRD VISION CONTROL

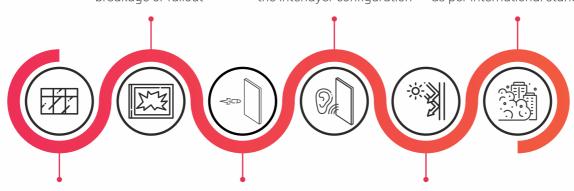
Allows visibility of glass to avoid collision

WHY MESH GLASS?

Protects individuals from accidental glass impact, breakage or fallout

Offers increased sound insulation depending on the interlayer configuration

Can be configured to provide storm and hurricane protection as per international standards



Allows for the creation of aesthetically superior and unique façades and interiors Can be designed to protect against burglar, bullet and blast attacks

Filters over 99% of UV rays, controls visible light radiation and reduces solar heat build-up and thermal stress



SWISS RAILWAY MAIN OFFICE BUILDING BERN WANKDORF, Switzerland

Architect: Lussi + Halter Partner AG, Luzern | Product: SEFAR® Architecture VISION Fabric | Application: Façade Photo credit: SEFAR®

WHERE CAN I USE MESH GLASS?



Floors



Skylights



Canopies



Structural Glazing



Curtain Walls



Fixed and Sliding Windows



Partitions



Railings



Fins



CRYSTAL OF SYLVINITE FOR BKK HEADQUATERS, Belarus

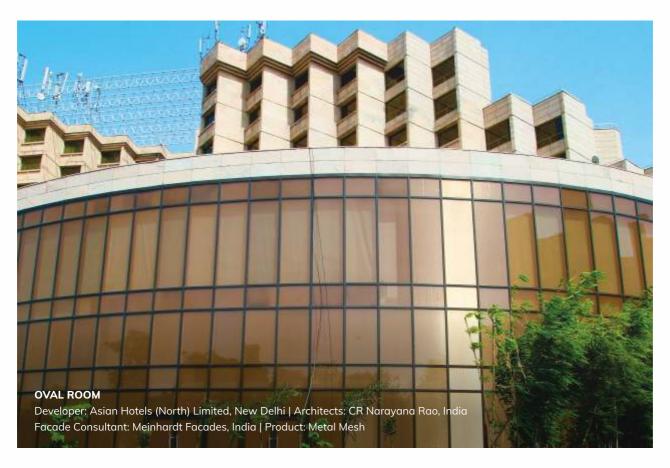
 $\label{eq:architect: Variabyeu Partners | Product: SEFAR * Architecture VISION - PR 260/55 Red | Application: Façade Photo credit: SEFAR * \\$

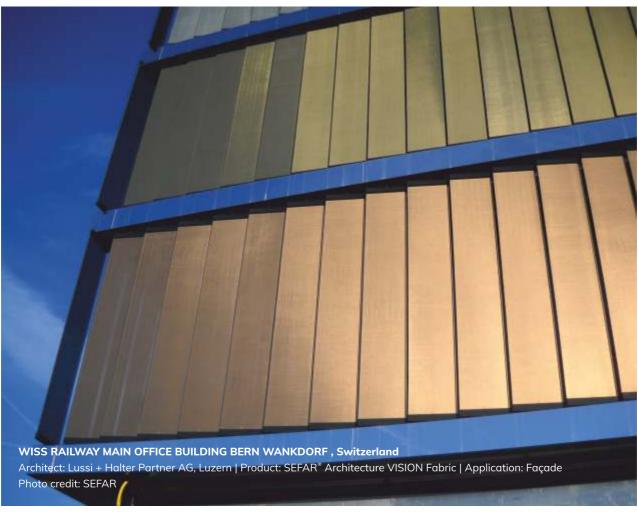
TECHNICAL SPECIFICATIONS

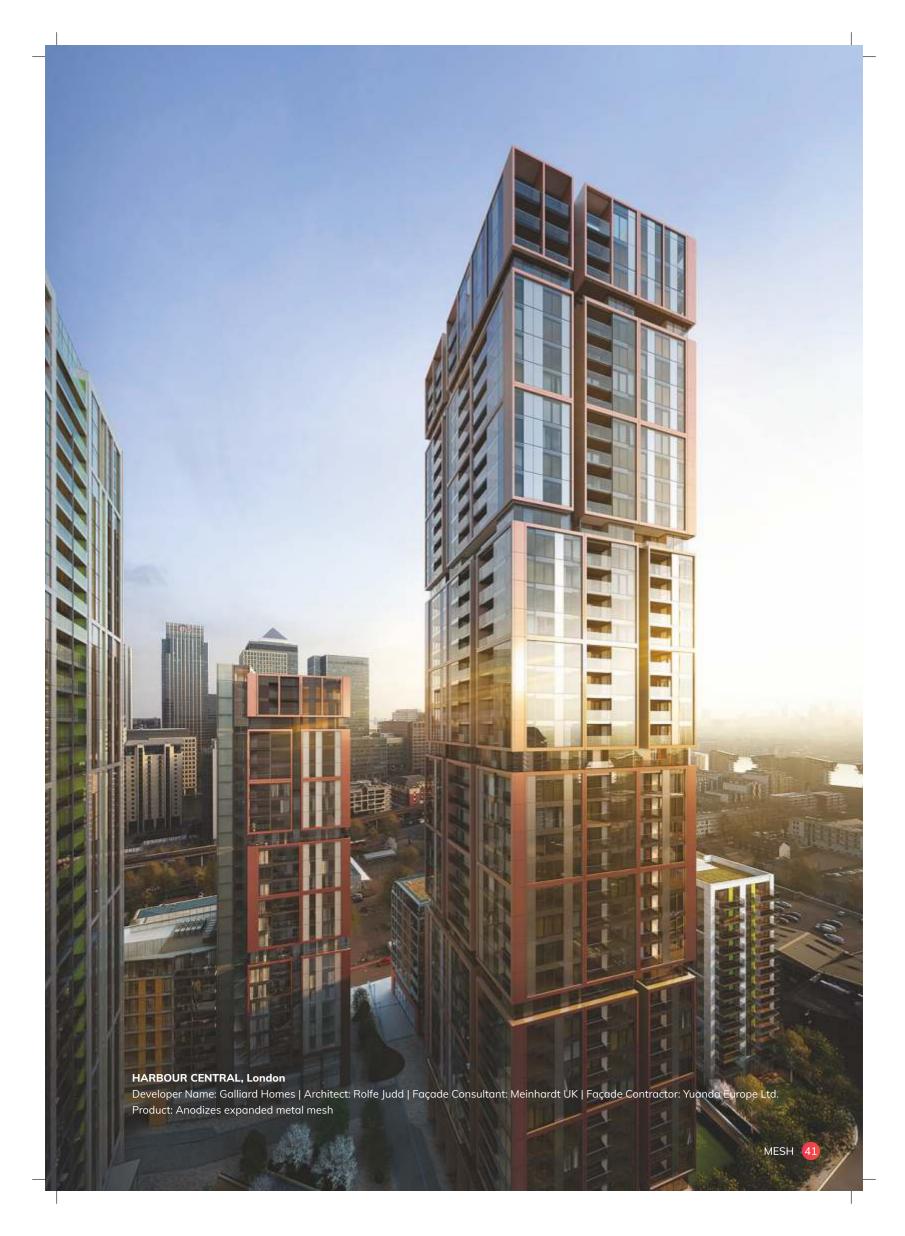
DESCRIPTION	LEVELS		
Process Type	Nip-rolled or vacuum treated followed by autoclaving for laminated glass. Vertical, fully automatic assembly line for insulated glass.		
Glass Types	Clear, extra clear, ultra-clear, tinted, solar-control coated, low-E coated		
Additional Process Compatibility	Ceramic-frit, digitecture [™] digital printing, sand-blasting, acidetching, holes, cutouts and notches		
Product Enhancement	Can be converted from/to GLAS SHIELD , CURVE SHIELD . FACADE SHIELD , CLIMA COOL , BURGLAR SHIELD , BULLET SHIELD , BLAST SHIELD and FIRE-SAFETY products		
Glass Thickness Range	3 mm to 19 mm		
Unit Thickness Range	11.04 mm to 27.04 mm		
Edge Types	Rough grind, arrissed, super polished		
Mesh Types	Expanded Metal (GKD™ Germany) Woven Metal (GKD™ Germany) Metal-Coated Fabric (SEFAR® Switzerland) Syntarqui®		
Colour Types	Gold, silver, bronze, copper, titanium, chrome, red, aluminum and other custom-printed types		
Interlayer Types	Kuraray SentryGlas® (USA)		

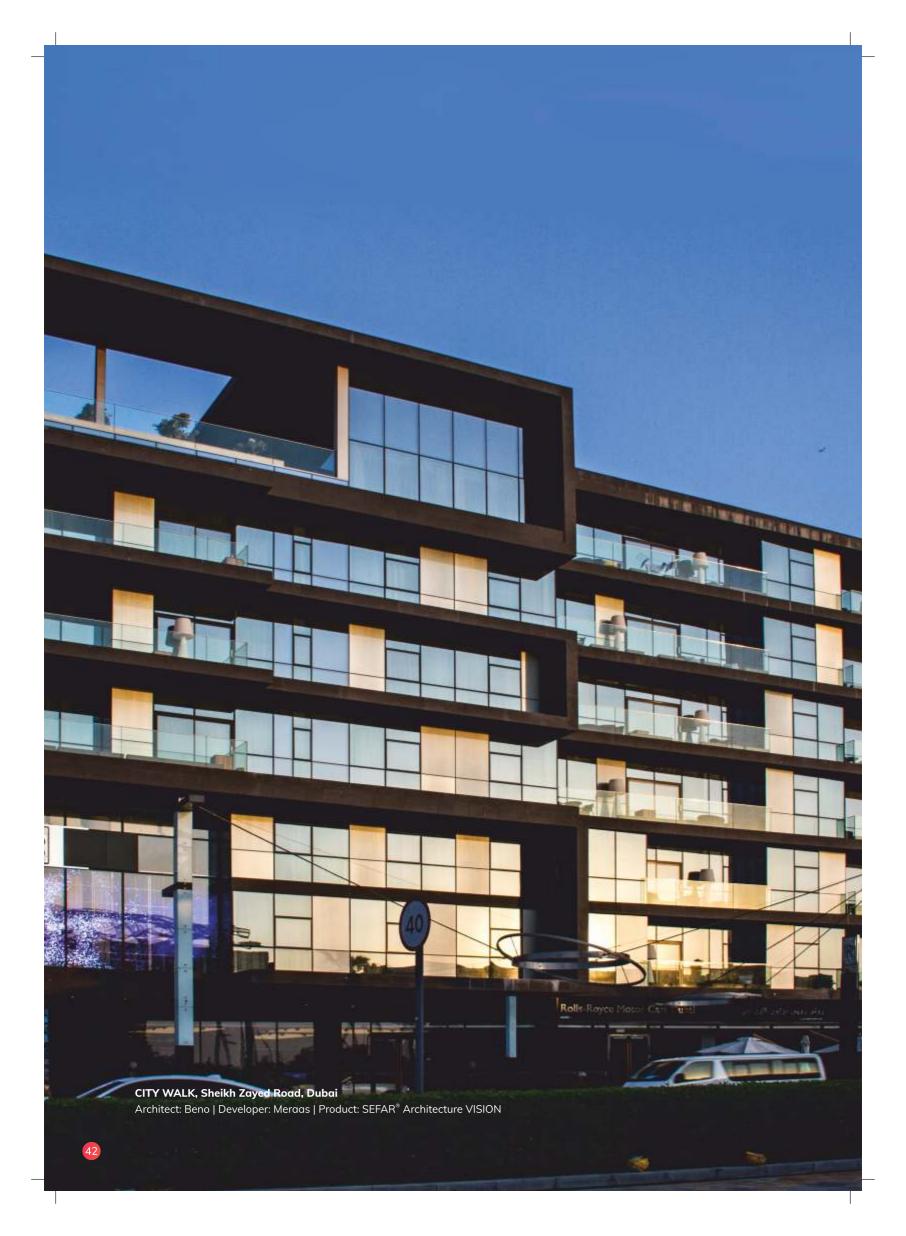
Please Note:

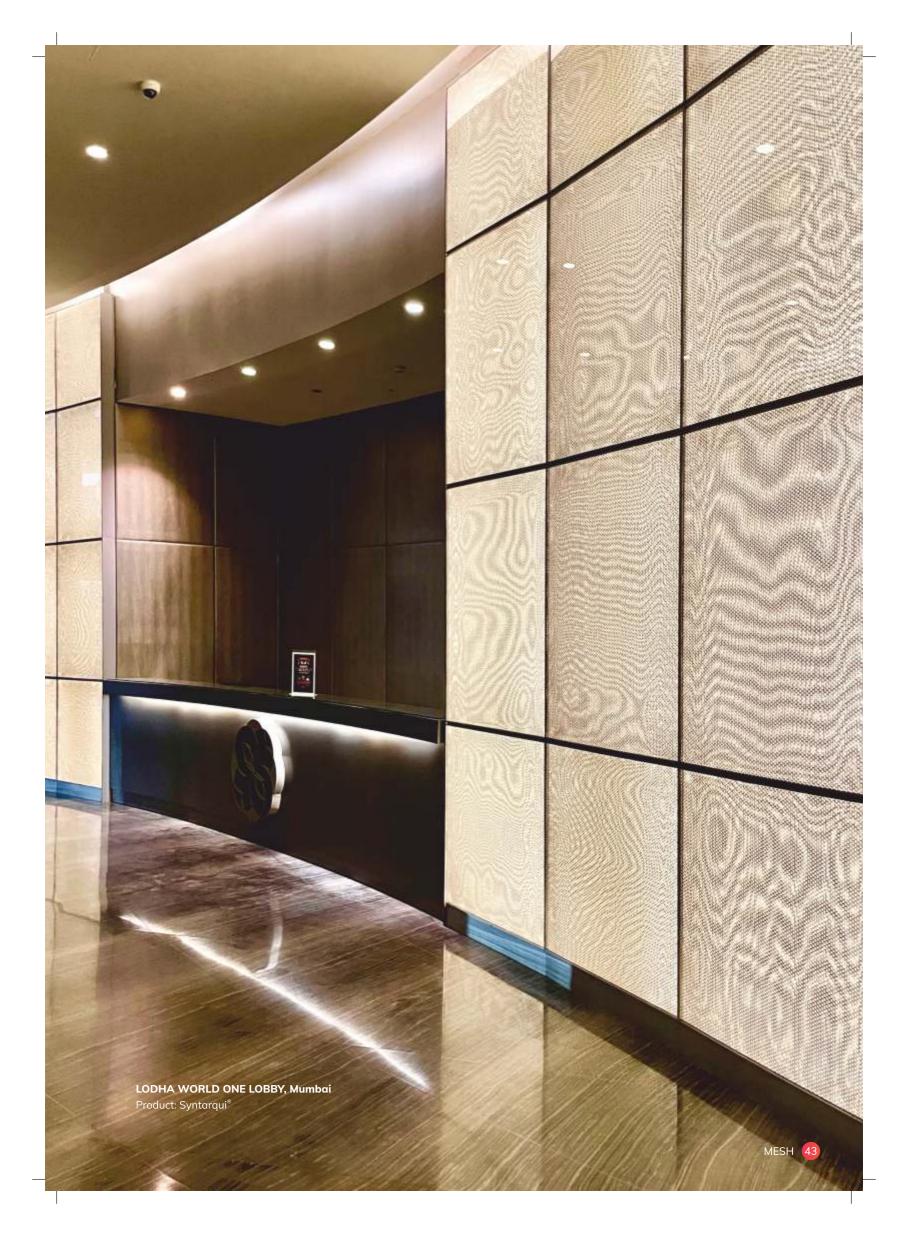
- 1. The mesh may expand or contract up to 5 mm due to temperature variations.
- 2. The special encapsulation technique used for the suspended mesh compensates for the differing expansion.
- 3. Mesh types are directional materials. The orientation of the mesh should be realized and agreed upon before releasing the order for production.
- 4. In case of MESH laminated glass, up to 10 mm clean edge may be required on all sides for better edgesealing.













INVISI-G

Have you ever found yourself peeking through the glass with your hands covering your face, trying to clearly identify that beautiful style of your favorite clothing brand or the intricate workmanship of your long-desired watch model? Turns out, conventional uncoated glass or ultra-clear glass can have up to 8% internal and external reflection, which makes it difficult to clearly look through them. INVISI-G has a residual external and internal reflection of less than 1%! Our glass is so clear that you can't see it, making it ideal for store fronts, display cases and paintings. We can process these panels to be toughened, heat-strengthened, bent, insulated or laminated to suit your safety requirements.

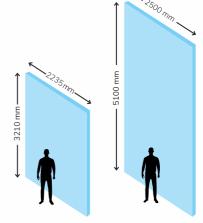
INVISI-G TYPES





INVISI-G SIZE

INVISI-G glass is available in a wide size range, from minimum 200 mm X 300 mm to maximum 1900 mm X 3210 mm (both side coated) and 2500 mm X 5100 mm (single side coated) enabling unmatched design flexibility without compromising on the performance.





BERLIN BOTANICAL GARDEN, Germany Product: LUXAR® | Photo Credit: Glastrosch



UNIQUE SELLING POINTS



CLEAREST POSSIBLE VIEW

Less than 1% refection and more than 99% CRI



PROCESSING CAPABILITY

Can be heat-treated, insulated and/or laminated



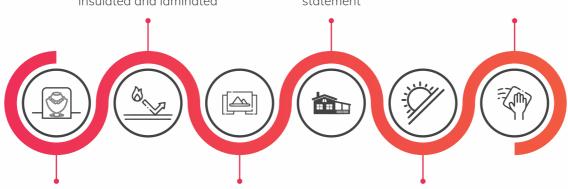
EASY TO MAINTAIN

Robust coating makes it easy to clean and maintain

WHY INVISI-G GLASS?

Offers processing flexibility as it can be toughened, heat-strengthened, printed, insulated and laminated

Creates pleasing aesthetics and makes a stunning statement Meets ISO durability performance standards and is easy to clean



8 times clearer than conventional glass with a reflection rate of less than 0.50% per side Ensures neutral and uniform reflection colour for the best viewing experience Offers solar control when combined with solar-control, low-E and heat-reflective coatings

WHERE CAN I USE INVISI-G GLASS?



Floors



Suspended and Bolted Façades



Fixed and Sliding Windows



Structural Glazing



Curtain Walls



Railings



Partitions



Display Units





AMIRAN-UBS-TOWERS, Chicago



PORSCHE DESIGN

PORSCHE DESIGN STUDIO, Munich

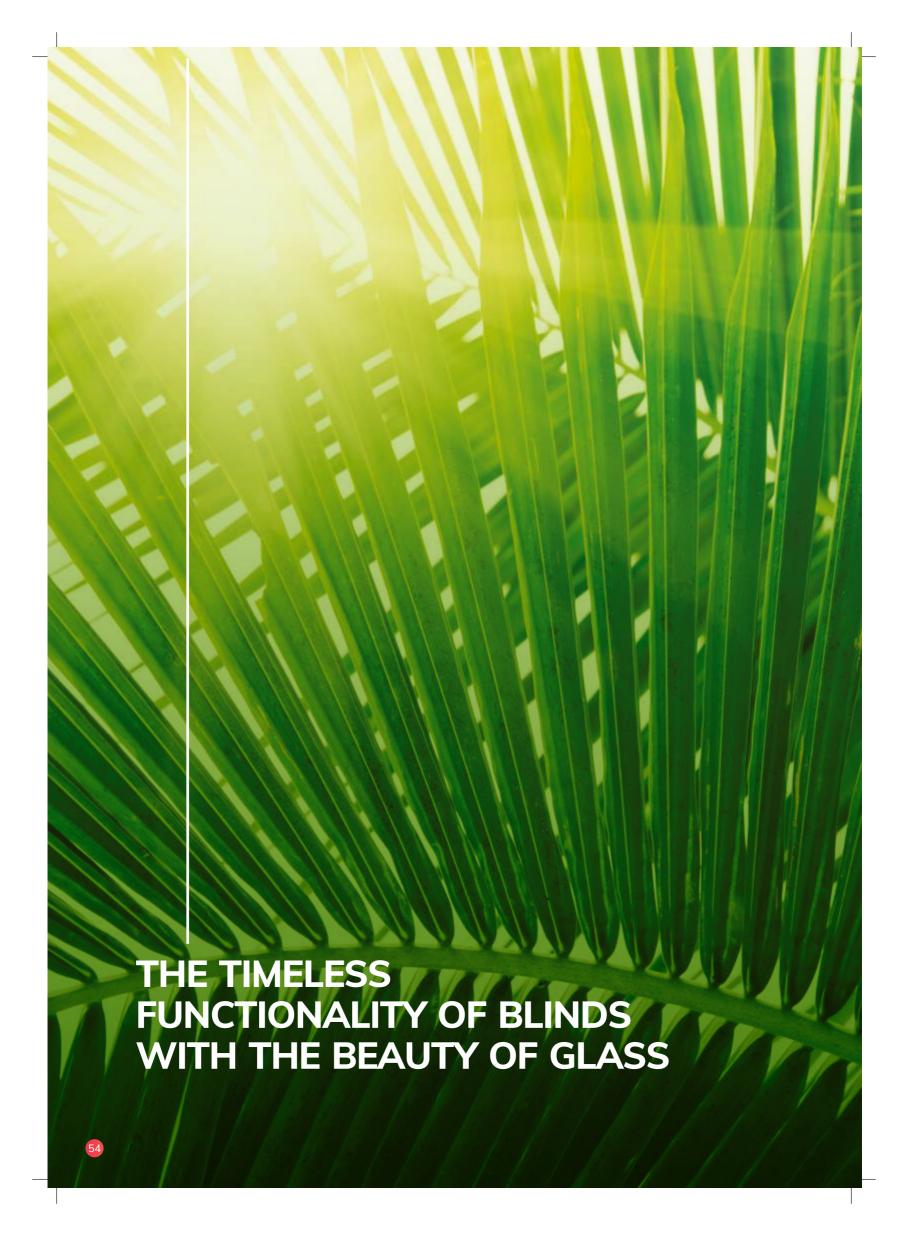
TECHNICAL SPECIFICATIONS

DESCRIPTION	LEVELS	
Coating Type	Magnetron Sputtered Vapour Deposited (MSVD)	
Coating Face	Dual-coated (for monolithic or insulated use) Single-coated (for laminated use)	
Glass Thickness Range	4 mm to 12 mm	
Laminated Thickness Range	8.38 mm to 24.76 mm	
Residual Reflection	<0.50% on each side	
Colour Rendering Index	>98%	
Edge Finish	Arissed, rough ground or super polished	
Additional Process Compatibility	Ceramic-frit, digitectureTM digital printing, sand-blasting, acidetching, holes, cutouts and notches	
Colour Types	Can be converted to GLAS SHIELD , CURVE SHIELD , FACADE SHIELD , CLIMA COOL , BURGLAR SHIELD , BULLET SHIELD and BLAST SHIELD	
Interlayer Types	Kuraray SentryGlas® (USA), Kuraray Trosifol® (Japan/Germany), Eastman Solutia® (USA)*	





STADEL MUSEUM, Frankfurt, Germany Product: SCHOTT AMIRAN® Photo Credit : SCHOTT



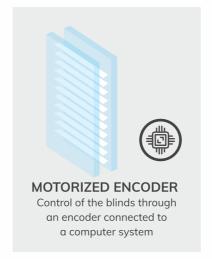
VENEZIA

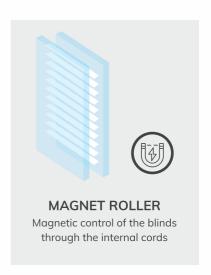
Get venetian blinds integrated within an insulated glass unit to create a unique design element that is absolutely maintenance free. These high-quality sandwich type blinds are manufactured with tested and performance slats for better heat and light control. The assembly is completely automated and once they are incorporated into the insulated glass unit there is a whole range design options possible. Certified by IFT Rosenheim, Germany these blinds are tested for extreme endurance and durability.



VENEZIA TYPES



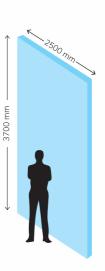




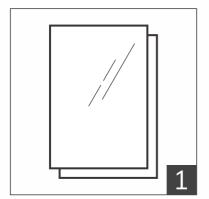


VENEZIA SIZE

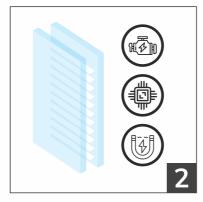
VENEZIA is available in a wide size range, from minimum 500 mm X 400 mm to 2500 mm X 3700 mm (30 mm to 46 mm)* enabling unmatched design flexibility without compromising on the performance.



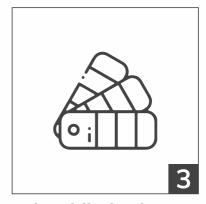
HOW IT IS MADE



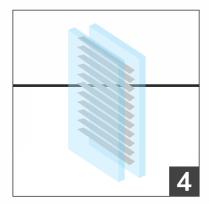
Select inner and outer glass



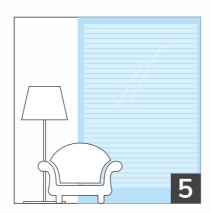
Select blind type (standard, encoder, roller, manual).



Select blind colour



Insulation process to encapsulate blind within glasses



Glass is ready for installation









ACTION BUSINESS CENTRE, Switzerland

UNIQUE SELLING POINTS



100% HYGIENIC

Encapsulation within glass makes it ideal for infectionprone areas such as hospitals



IMPACT PROTECTION

Completely maintenance free and no risk of entanglement



SOUND CONTROL

100% sunlight can be controlled on demand

WHY VIVID COLOURED GLASS?

Built for extreme performance and tested for thousands of cycles

Control light and heat on demand through the windows



Manufactured on a state-of-the-art hermetic sealing line from Lisec, Austria

Wide application scope for both internal and external applications

WHERE CAN I USE VENEZIA?





Skylights and canopies



Branding areas



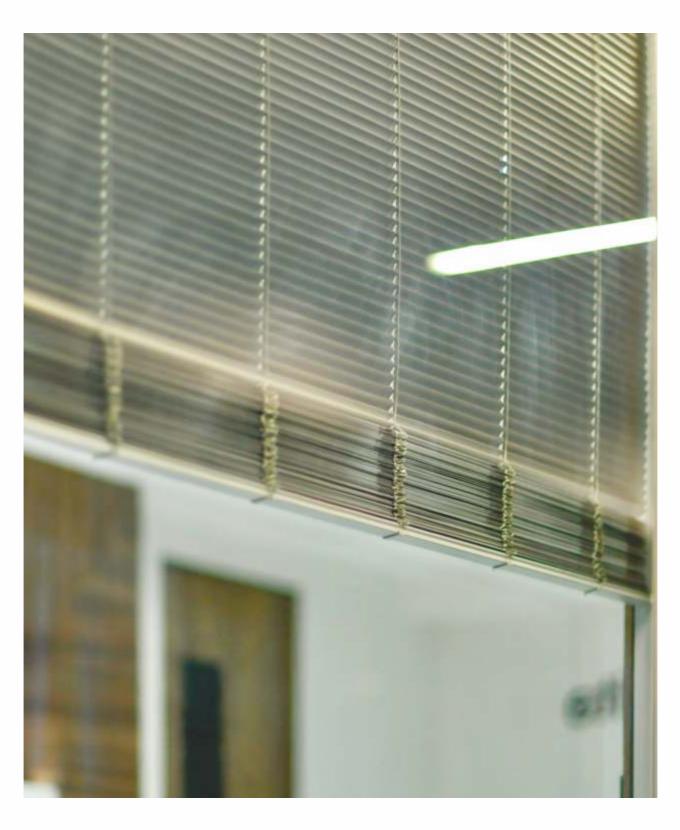
Entrance doors



Interior partitions



Shop fronts



TECHNICAL SPECIFICATIONS

FEATURE	MOTORIZED	MAGNET	MANUAL
Technology	Motorized or manual aluminum blinds encapsulated within glass		
Motor	24V DC, 6W permanent motor. Power supply through SMPS.		
Power Supply (SMPS)	230V AC to 24V D	2	
Slats	Aluminum 5052 with UV coating (colour as per requirement)		
Threads	Modified polyester threads treated for prolonged life		
Air Gap between Panes	29 mm to 32 mm	29 mm to 32 mm	20 mm
Unit Glass Thickness	30 mm to 46 mm	30 mm to 46 mm	30 mm to 46 mm
Edge Finish	Arissed, rough ground or super polished		
Additional Process Compatibility	Ceramic-frit, digitecture [™] digital printing		
Product Enhancement	Can be converted to BURGLARSHIELD, BULLETSHIELD and BLASTSHIELD		



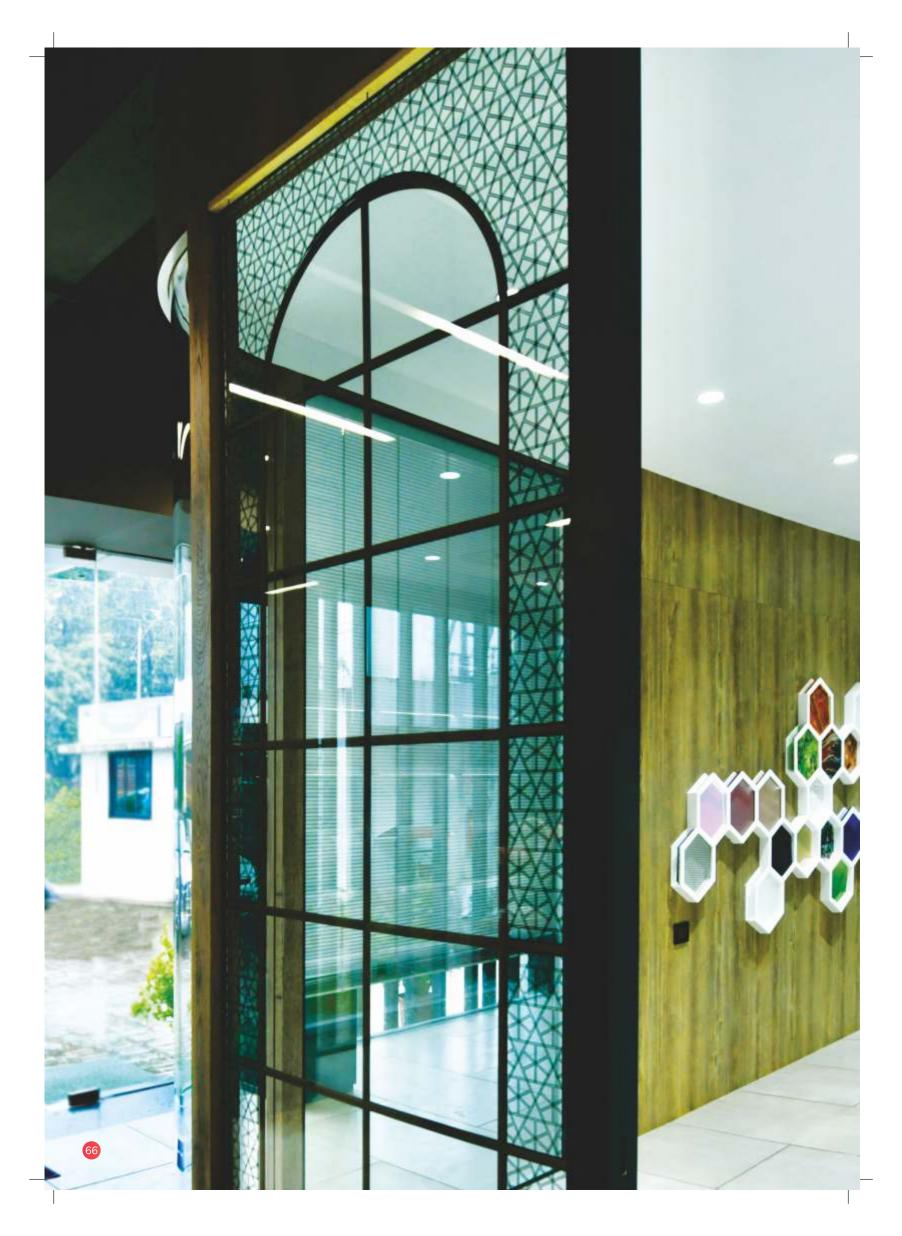
GELSENWASSER, Germany





GEORGIAN

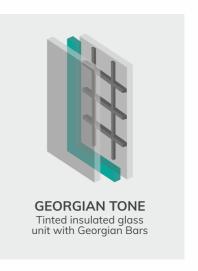
Glass windows and doors made with Georgian bars have offered us timeless architectural beauty. While these were more a result of product and technology limitations in earlier centuries, their unique beauty still captivates us. FG brings you this timeless product with new-age materials, with the Georgian Bar assembly safely encapsulated within an insulated glass unit. Made with extruded aluminium, we have a unique clip-on system that joins these bars with millimeter precision, offering you great aesthetics in a modern format. These units can be made in very large sizes and combined with coated or tinted glasses for additional performance.



GEORGIAN TYPES





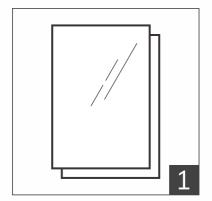








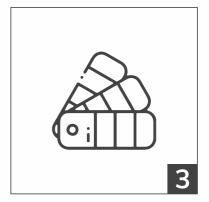
HOW IT IS MADE



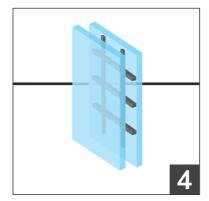
Select inner and outer glass



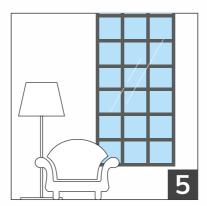
Select Georgian Bar type (01, 02, 03).



Select Georgian Bar colour

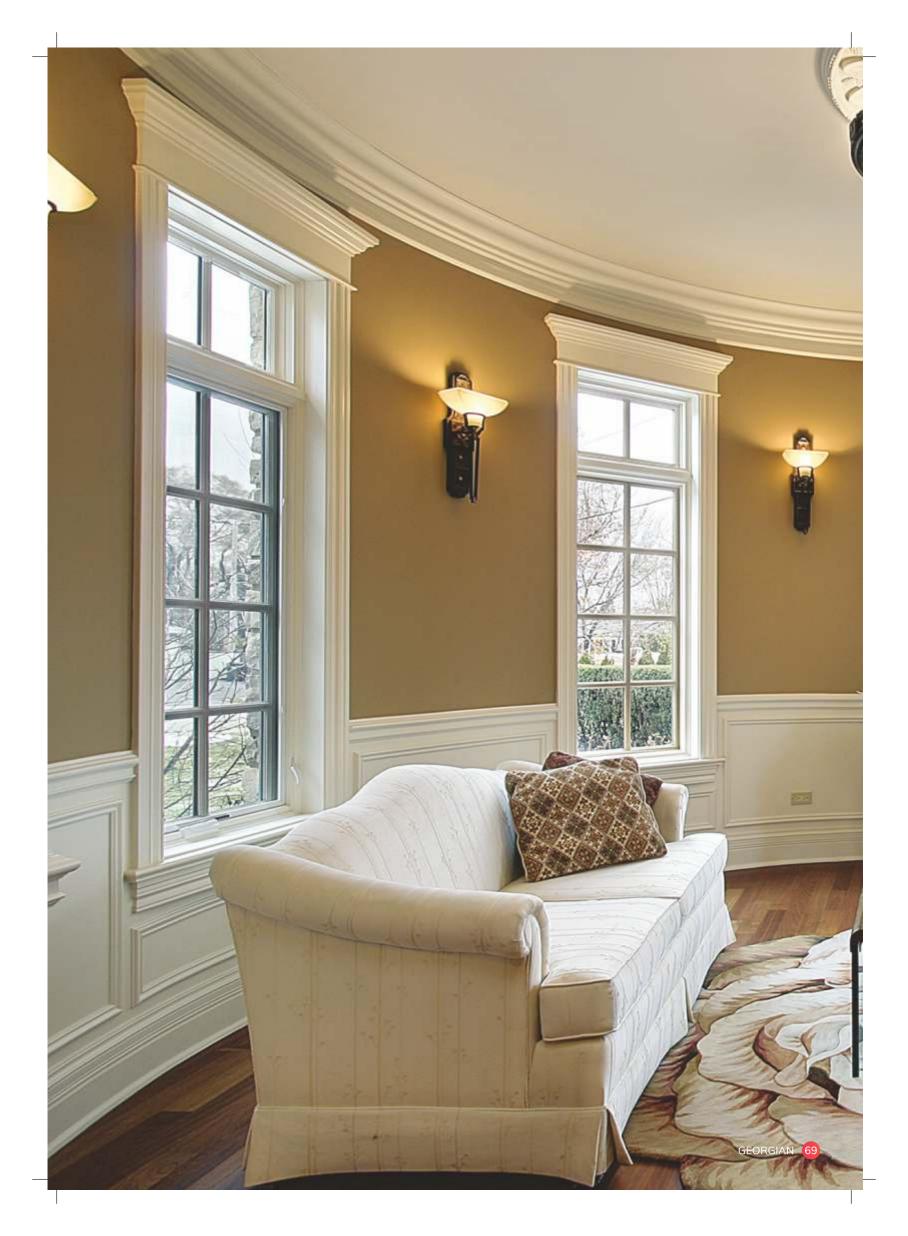


Insulation process to encapsulate bar assembly within glasses



Glass is ready for installation





UNIQUE SELLING POINTS



TIMELESS BEAUTY

Vintage French window aesthetics with modern manufacturing technology



MAINTENANCE FREE

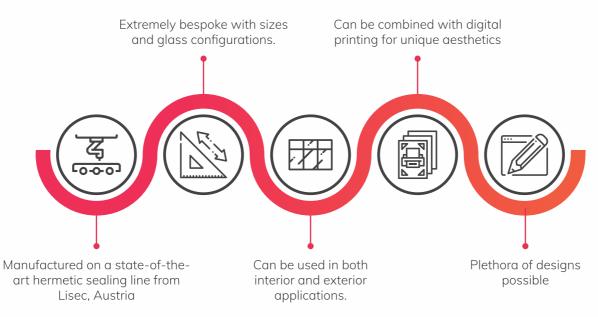
Completely maintenance free with no dust accumulation



COLOUR OPTIONS

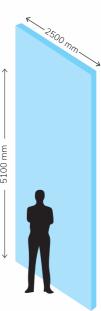
Wide range of colour options possible

WHY VIVID GEORGIAN GLASS?



GEORGIAN SIZE

Georgian bar is available in the wide size range, from Minimum 500 mm X 500 mm to 2500 mm X 5100 mm (30 mm to 46 mm)* enabling unmatched design flexibility without compromising on the performance.



WHERE CAN I USE GEORGIAN?









Interior partitions Entrance doors



TECHNICAL SPECIFICATIONS

FEATURE	MOTORIZED
Technology	Special extruded aluminum profiles with custom joinery
Surface Finish	Anodized or powder coated in custom RAL colours
Air Gap between Panes	15 mm to 24 mm Edge Finish Arissed, rough ground or super polished
Additional Process	Compatibility Ceramic-frit, sand-blast, digitecture [™] digital printing
Product Enhancement	Can be converted to BURGLAR SHIELD , BULLET SHIELD and BLAST SHIELD

PROFILE TYPES

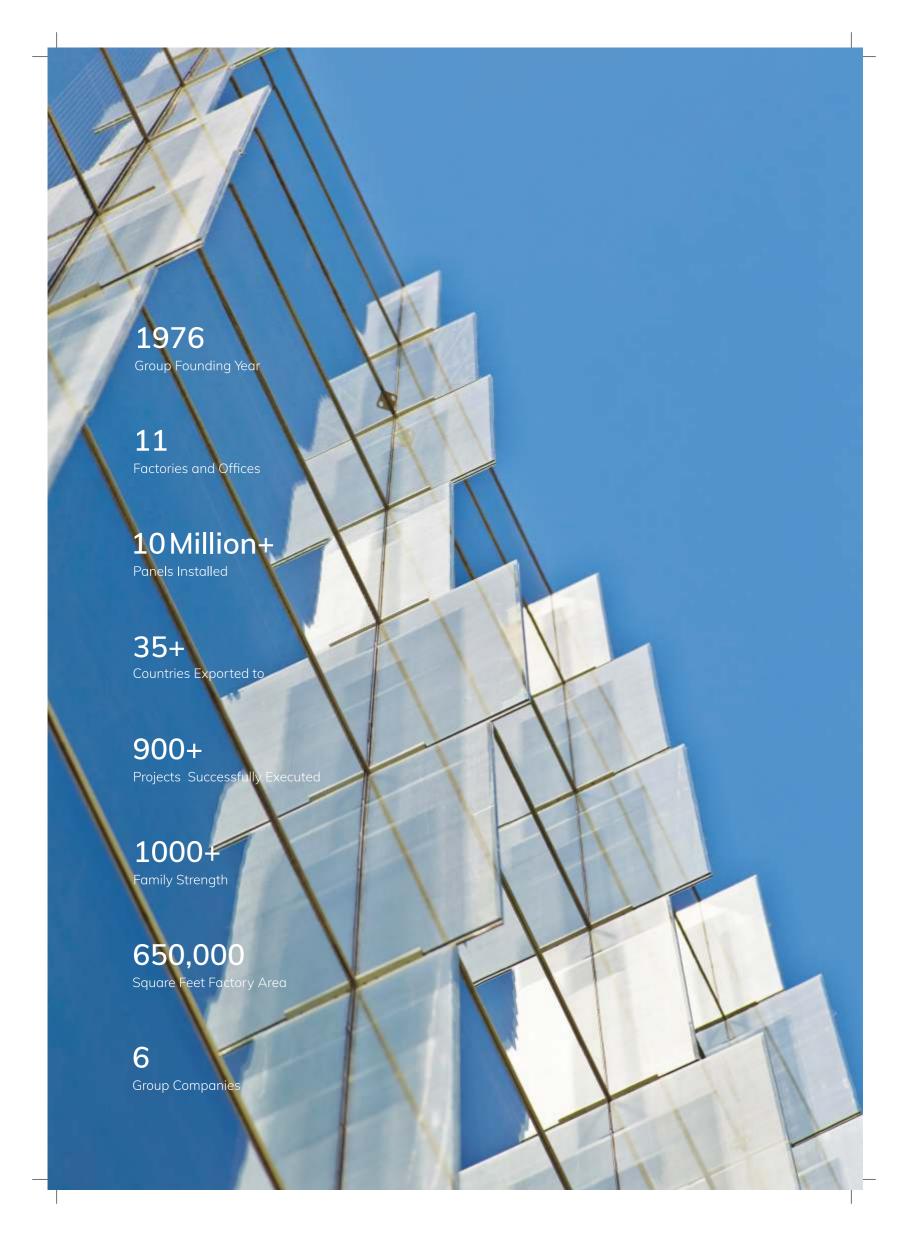












WHO WE ARE

Part of the Fishfa Group, FG Glass is among the world's leading architectural glass processing company. Over the last two decades, we have successfully completed a wide range of projects in more than 35 countries across 5 continents. Our rigorous quality standards and robust project management processes have been key factors in ensuring that our projects are delivered on time and on budget.

We have a well-established supplier network in Europe and the Americas and state-of-the-art manufacturing facilities in India and the UAE, which has enabled us to leave our footprint in multiple locations across the globe. We're constantly working on setting new standards in the glass industry and this has led to us being the glass supplier of choice for businesses around the world. Our partnership with Kuraray, a leading Japanese brand, has allowed us to bring the thinnest, clearest and fully-certified security glass to India.



FG GLASS INDUSTRIES PVT. LTD.

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