SAINT-GOBAIN

LIGHT & SUSTAINABLE AIRPORTS.

BUILT FOR THE FUTURE.

BUILDING FOR TOMORROW'S CHALLENGES, TODAY

Airports are constantly evolving, increasingly shaped by the demands of a fast-paced, connected world and rising urban expectations. With the growing need for functionality, safety, and adaptability, developers, architects and designers today have the potential to create environments that enhance user experience, ensure long-term durability, and remain efficient, sustainable, and high-performing.

THE NEEDS OF AIRPORTS

In the airport space, the 5 most sought-after needs are:

01

Safety
Fire resistance, blast-proof, and bullet-resistant are critical to ensuring safe and secure environments in airports that accommodate large numbers of occupants.

02

Efficient Construction
Airport infrastructure must be delivered quickly with modular approaches, especially in retail spaces, to meet evolving community needs, while minimising operational costs and maximising long-term efficiency.

03

Energy-efficiency
Solar control, thermal insulation and reducing energy consumption while ensuring cost-efficiency for operators, are essential to airports.

04

Wellbeing
Airports mandate a sense of comfort and wellbeing for visitors, while also maintaining the highest standards of contamination management, that is cleanliness and hygiene.

05

Acoustic comfort
Acoustic comfort is essential in airports with high footfall and a floating population, helping reduce ambient buzzing noise and create calmer, more pleasant environments.

The future of airports design lies in achieving a harmony of safety, efficient construction, energy-efficiency, contamination management and acoustic comfort, backed by **light and sustainable construction.**

01

CREATING SECURE ENVIRONMENTS FOR HIGH-FOOTFALL AIRPORTS

Airports accommodate large volumes of people every day, making safety a top priority. Building materials used in these environments must be able to identify threats, minimise risk, help evacuate in times of disasters, and withstand heavy usage while maintaining reliability.

A combination of Saint-Gobain's fire-rated glazing and partitions, blast-proof and bullet-resistant solutions, fire-rated gypsum wall and ceiling systems, insulation, and specialised construction materials for flooring helps enhance impact resistance, contain fire and smoke, and improve overall structural safety.

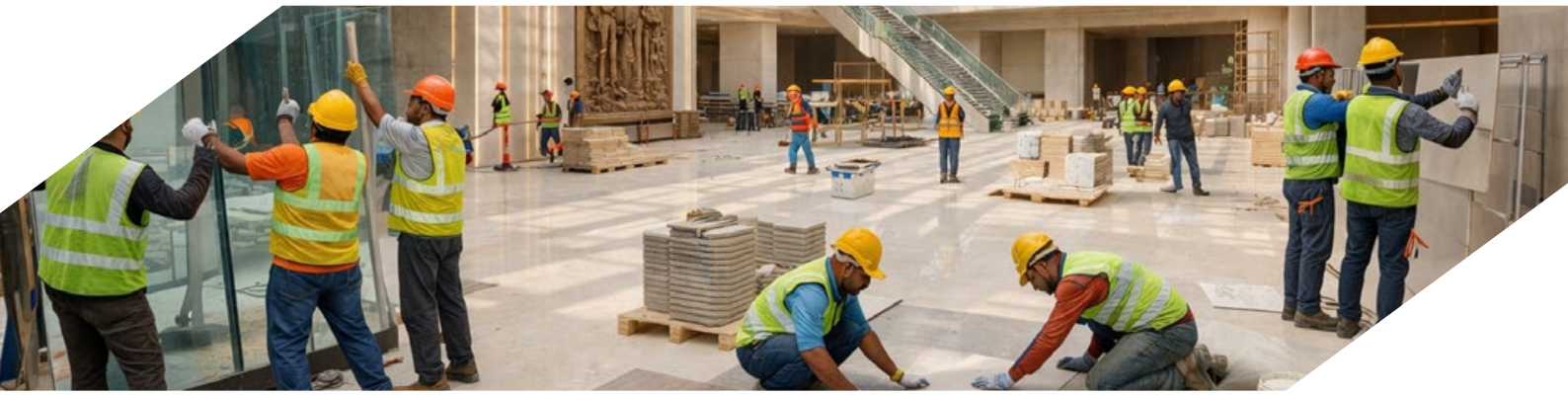
These solutions also support visibility (early detection of an incident), controlled circulation, and compliance with safety regulations across high-traffic environments.

02

BUILDING SOLUTIONS THAT ARE BUILT TO PERFORM

Airport infrastructure must evolve to meet growing urban demands and diverse user expectations, calling for solutions that are resource-efficient, quick to deploy, and adaptable for future use. These spaces often operate under tight timelines, making speed of construction and minimal disruption critical, especially for expansions, upgrades, and high-footfall environments.

The use of modular systems and high-performance materials — such as Saint-Gobain drywall and panelized systems, insulation, and advanced glazing — enables faster installation, improved quality control, and the flexibility to adapt spaces as needs change. These approaches also help reduce operational costs, optimise energy performance, and ensure long-term durability — reinforcing the need for airports that are efficient, resilient, and built for sustained performance.



LIGHT CONSTRUCTION

Light Construction offers a smarter way to build airports — using advanced materials and efficient construction methods that enable faster project delivery with minimal disruption. This approach is especially valuable for airports where timelines, safety, and uninterrupted public access are critical, and in retail spaces within the airport where modularity takes precedence.

With solutions from Saint-Gobain, projects benefit from lighter structural loads, efficient resource use, and quicker installation. Applications such as high-performance glazing, partitions and hardware solutions, lightweight plasterboards, gypsum plasters, drywall systems, insulation, modular partitions, and ceiling systems help create spacious, durable environments that can comfortably accommodate large volumes of people.

SUSTAINABLE CONSTRUCTION

Sustainability is no longer a choice — it is a responsibility, especially for airports that serve large communities every day. Airports increasingly seek environments that are energy-efficient, comfortable, and environmentally responsible.

With solutions from Saint-Gobain — including high-performance glazing, gypsum plasters, insulation, acoustic systems, plasterboards, and specialised construction materials — airports can remain naturally brighter, quieter, and more thermally efficient. Reduced energy demand helps lower operational costs, while improved indoor comfort enhances the experience for visitors and occupants alike.

DURABLE CONSTRUCTION

Airports operate under extremely high-traffic conditions, requiring materials and systems that can perform reliably under continuous usage and exposure. Durability becomes a critical design parameter- ensuring resistance to wear, moisture ingress, and environmental stress while maintaining structural integrity and safety over time.

Saint-Gobain's construction chemical solutions enhance structural strength and durability across varying climatic conditions, while high-performance flooring systems provide superior abrasion resistance, load-bearing capacity, and ease of maintenance in heavy-traffic zones. Complementary systems such as impact-resistant surfaces, wall coverings, and high-performance glazing further strengthen safety, durability, and visual performance.

The outcome is airports that are resilient, low-maintenance, and designed for long-term performance - supporting sustainable, efficient, and future-ready urban mobility environments.

03

DELIVERING COMFORT AND EFFICIENCY IN LARGE, DYNAMIC ENVIRONMENTS.

Airports feature expansive facades and large glazed areas, making energy performance critical. High-performance glazing with strong thermal insulation and solar control properties reduces unwanted heat gain, minimises glare, and lowers HVAC loads. This not only enhances occupant comfort but also significantly reduces energy consumption and operational costs in high-occupancy, 24/7 environments.

Saint-Gobain's energy-efficient solutions enable airports to balance comfort, sustainability, and cost-effectiveness.

04

ENSURING SPACES THAT CARE FOR YOUR WELLBEING

Airports must prioritise wellbeing, as they directly influence the experience of large and diverse groups of people every day. Designing with wellbeing at the core goes beyond functionality to support physical health, mental ease, and overall comfort. Elements such as ample natural light, good indoor air quality, acoustic comfort, optimal solar & thermal conditions, and impeccable hygiene contribute to spaces that are welcoming, safe, and easy to maintain.

Solutions from Saint-Gobain — including high-performance glazing for daylight and solar control, lacquered glass for aesthetic and functional value, insulation for thermal efficiency, gypsum systems for acoustic comfort, and low-emission materials — work together to enable cleaner, quieter, and more comfortable airport environments. Saint-Gobain construction chemicals and flooring solutions ensure effective contamination management including moisture, water ingress etc. They help minimise pollutants, resist wear and tear, and support hygiene & cleanliness to create environments that are both healthy and resilient across seasons and varying usage patterns.

05

DESIGNING SOLUTIONS THAT ARE MUSIC TO THE EARS

Acoustic comfort is essential in airports with constant movement, conversations, and activity can create persistent ambient noise. Managing this buzz is critical to improving user experience—making spaces feel calmer, more welcoming, and easier to navigate.

Thoughtful acoustic design helps absorb, block, and control sound transmission across zones—reducing reverberation in large volumes, limiting noise spillover between areas, and enhancing speech clarity in high-traffic environments such as airports.

Saint-Gobain solutions play a key role in achieving this balance. High-performance acoustic plasterboards, insulation systems, and laminated glazings can minimise external noise ingress while maintaining transparency and aesthetics. Acoustic ceiling systems help absorb excess sound and reduce echo. Together, these integrated solutions enable airports that are acoustically comfortable and conducive to better human experiences.

BUILDING CODES AND REGULATORY LANDSCAPE

DESIGNING FOR COMPLIANCE AND DELIVERING HIGHER PERFORMANCE.

India's building codes define the critical requirements for safety, efficiency, and operational reliability in airports. Saint-Gobain solutions are designed not only to meet these standards but to exceed them—helping airports achieve enhanced energy efficiency, durability, safety, and performance stability for mission-critical operations.

7 out of 10 Green buildings in India use Saint-Gobain products.

LCAs/EPDs

All Saint-Gobain products and systems are supported by more than 3,000 Life Cycle Assessments (LCAs). The outcomes of these assessments, including Environmental Product Declarations (EPDs), are transparently published and independently verified by third parties.

Regulatory codes and green-rating frameworks establish baseline expectations for performance in airports. Saint-Gobain solutions are **engineered to exceed** these requirements.

The National Building Code (NBC 2016) sets standards for fire safety, ventilation, daylight, and indoor environmental quality.

Saint-Gobain solutions exceed benchmarks

- Vandal, attack, bullet, and blast-resistant glass systems for **protection against physical threats.**
- Through drywall assemblies, fire-rated glass systems, and fire curtains **tested from 30 minutes up to 240 minutes.**
- Acoustic Insulation with drywall systems, glass partitions, and window systems, achieving up to **80 dB reduction.**
- **Low-VOC coatings and flooring systems** support healthier indoor environmental conditions.
- Specialty ceilings and wall panel can help achieve **Reverberation time < 1.5 sec and low background noise (45-50 dBA)**
- Fire-resistant mortars and coatings **enhance passive fire protection** of critical structural elements.
- **Non-combustible insulation** exceeding the requirements of NBC Part 4

Green frameworks such as **IGBC** and **GRIHA** assess daylight, IAQ, material impact, and acoustics.

Saint-Gobain solutions support stronger outcomes

- Delivering **daylight factors above 2%**
- **Achieved NC 30-35** acoustic conditions
- Lower embodied carbon with **certified, low-impact materials**: glass, plasterboard, and concrete admixtures
- Specialty acoustic ceilings, glass partitions, drywall systems and wall panels help reduce background **noise levels < 35 dBA and reverberation time < 0.4 sec**
- Insulated building envelope helps to maintain thermal comfort by **reducing heat load up to 80%**
- Compressed insulation packaging **reduces site waste and logistics cost**
- Over-deck insulation and waterproofing systems enhance thermal efficiency, contributing to **reduced energy consumption** within buildings.

Energy Conservation and Sustainable Building Code (ECSBC 2024) defines limits for thermal performance and solar heat gain.

Saint-Gobain drywall, glazing, insulation, construction chemicals, and window solutions outperform the code mandates

- Exterior drywall systems offering **30–40% better thermal efficiency**
- **U-values** as low as **0.20–1.6 W/m2K** **SHGC** values reaching **0.23**
- Reduced HVAC load with Insulation solutions with **R-value 25%** better than ECSBC 2024 requirements for improved occupant comfort
- Spray-applied insulation systems and high solar reflective coatings improve **building thermal performance** and reduce **energy consumption**

LEED further measures EUI and envelope performance

Saint-Gobain drywall, glazing, insulation, construction chemicals, and window solutions contribute to 8–12 LEED EA points by reducing HVAC loads and improving EUI

- **U-values 0.6 to 0.8 W/m2K** with exterior drywall system and **1.0-1.6 W/m2K & SHGC down to 0.23** with high-performance glazing
- High-efficiency insulation and verified disclosures such as **EPDs and low-VOC certifications**
- Help projects document performance gains across **Energy, IEQ, and Materials credits with greater reliability**
- Lower embodied carbon with **certified, low-impact materials**: glass, plasterboard, and concrete admixtures
- Credits In Material, Sustainability, and **IAQ – up to 20 Points**
- Low Thermal Conductivity and Recyclable materials **contribute to sustainable material credits**
- PU spray-applied foam insulation over roofs **(K-value ~0.028 W/m·K),** along with **high solar reflective coatings (SRI >100)** enhances **thermal efficiency** and supports improved **energy performance**

High-efficiency glazing, windows, hardware, insulation, drywalls, specialty ceilings & wall panels, gypsum plasters, fire and acoustic-rated systems, and construction chemicals collectively strengthen every dimension of multi comfort, enabling workplaces that deliver higher efficiency, enhanced occupant **comfort** and **wellbeing**, and **long-term performance** beyond mandated standards.

LIGHT & SUSTAINABLE SOLUTIONS FOR GREEN BUILDINGS

38 POINTS

HIGHEST CONTRIBUTION OF GREEN RATING POINTS

SAINT-GOBAIN | vetrotech SAINT-GOBAIN | gyproc SAINT-GOBAIN

FOSROC | chryso SAINT-GOBAIN | ecophon SAINT-GOBAIN

weber SAINT-GOBAIN | Rockinsul™ | Twigainsul®

NORTON SAINT-GOBAIN | ADFORS SAINT-GOBAIN | SolarGard SAINT-GOBAIN | CLIMAVER®

2 POINTS

PASSIVE ARCHITECTURE

HIGH PERFORMANCE GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS

15 POINTS

ENERGY EFFICIENCY

HIGH PERFORMANCE GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
THERMAL EFFICIENT DRYWALL & CEILING SYSTEM |
INSULATION

5 POINTS

GREENPRO CERTIFICATION

HIGH PERFORMANCE GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
PLASTERBOARDS | PLASTERS |
SPECIALTY CEILINGS AND WALL PANELS |
INSULATION | CONSTRUCTION CHEMICALS

2 POINTS

RECYCLED CONTENT

HIGH PERFORMANCE GLASS |
LACQUERED GLASS | FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS | PLASTERBOARDS |
SPECIALTY CEILINGS AND WALL PANELS |
INSULATION

2 POINTS

LOCAL MATERIALS

HIGH PERFORMANCE GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
LACQUERED GLASS | PLASTERBOARDS |
PLASTERS | SPECIALTY CEILINGS AND WALL PANELS |
VALUE ADDED GYPSUM PLASTERS |
INSULATION | CONSTRUCTION CHEMICALS

1 POINT

HANDLING OF WASTE DURING CONSTRUCTION

HIGH PERFORMANCE GLASS | LACQUERED GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
PLASTERBOARDS | PLASTERS |
SPECIALTY CEILINGS AND WALL PANELS | INSULATION

1 POINT

INNOVATION WITH LOW CARBON MATERIALS

LOW CARBON GLASS | LOW CARBON PLASTERBOARD |
LOW CARBON PLASTERS

3 POINTS

DAYLIGHTING & OUTDOOR VIEWS

HIGH PERFORMANCE GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS

1 POINT

LOW EMITTING MATERIALS

HIGH-PERFORMANCE GLASS |
LACQUERED GLASS | PLASTERBOARDS |
PLASTERS | SPECIALTY CEILINGS AND WALL PANELS |
INSULATION | CONSTRUCTION CHEMICALS

1 POINT

OCCUPANT WELL BEING FACILITIES

HIGH PERFORMANCE GLASS | LACQUERED GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
PLASTERBOARDS | PLASTERS |
SPECIALTY CEILINGS AND WALL PANELS | INSULATION

1 POINT

OPTIMIZATION IN STRUCTURAL DESIGN

HIGH PERFORMANCE GLASS | LACQUERED GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
DRYWALLS | PLASTERS |
CONSTRUCTION CHEMICALS

1 POINT

WATER USE REDUCTION FOR CONSTRUCTION

DRYWALLS & CEILING SYSTEM |
PLASTERS |
CONSTRUCTION CHEMICALS

3 POINTS

EXEMPLARY PERFORMANCE

HIGH PERFORMANCE GLASS | LACQUERED GLASS |
FIRE RATED GLASS SYSTEMS |
HIGH SECURITY GLASS SYSTEMS |
PLASTERBOARDS | PLASTERS |
SPECIALTY CEILINGS AND WALL PANELS |
MOISTURE RESISTANT PLASTERS |
HIGH COVERAGE PLASTERS |
INSULATION | CONSTRUCTION CHEMICALS

THE BUILDING - A **360º** VIEW

SOLUTIONS FOR EVERY SURFACE AND SYSTEM

PRE-CONSTRUCTION

- Waterproofing Solutions
- Concrete Repair Systems
- Innovative Concrete Solutions
- Industrial Flooring Solutions
- Concrete Admixtures
- Joint Sealants
- Abrasive Wheels and Discs
- Surface Treatments
- Grouts
- Anchors

ENVELOPE

- High Security Glass Solutions
- Fire-rated Glass Solutions
- Electrochromic Glazing
- External Plasterboard
- uPVC Windows
- Sealants
- Tile Adhesives
- Railings
- Glass Cutting Wheels

INTERIORS

Decorative Gypsum Ceilings

Gypsum Plasters

Internal Tile Adhesives and Tile Grouts

Wall Coverings

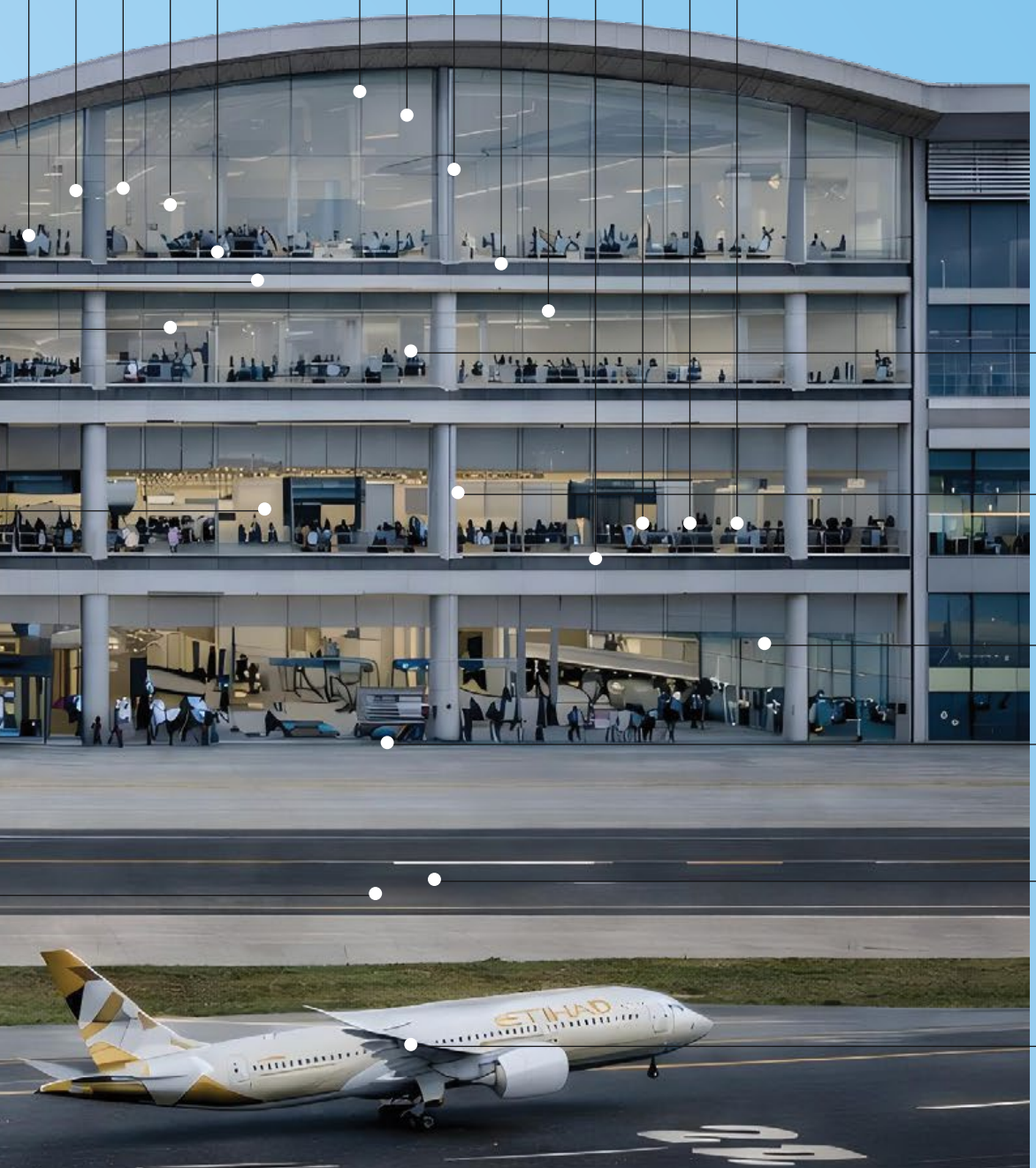
Lacquered Glass

Mirrors

Privacy Glass

Acoustic Wall Panels

Shower Cubicles



Gyproc Habito Drywall with load bearing capacity

Gyproc Hydro Drywall with moisture & mold resistance

Gyproc Exterior Drywall with Glasroc X

Gyproc Gypsum Ceilings

Gyproc Drywall Quiet

Gyproc Gypsum Plaster with bonding agent

SOLUTION SNAPSHOT

FOUNDATION

Advanced waterproofing systems and construction chemical solutions provide critical protection against moisture ingress and subsoil exposure - ensuring long-term durability and structural stability of foundations in high-footfall airports. Polypropylene Geo Grid - Soil Stabilisation.

SUPERSTRUCTURE

Abrasives like - Cutting Wheels and Surface Finishing Discs for Metal, Wood, Concrete, Tile, and Wall, Sheets and Cloth Rolls, Core Bits, Drill Bits and Screw Bits, Additives, Cement Adhesives, Concrete Admixtures, Low Carbon Concrete, advanced concrete admixtures and low-carbon technologies improve density, reduce permeability, and enhance durability - supporting high-load structural performance and long-term reliability and contribute to the Structural Strengthening of airports.

FACADES

High-performance Low Carbon Glass (also in jumbo sizes), Vetrotech high-security glass system solutions, Weatherproof Exterior Drywall using Glasroc X, and High Performance Façade sealants and Surface treatments combine to deliver durable, weather-resistant, physically secure and energy-efficient façades for reliable Airports' performance. Automatic Sliding Doors & Spider Fittings support façade performance and structural durability. Glass Wool and Stone Wool for Curtain Wall, Stone Wool for Fire and Smoke Seal Applications. Glass Fiber Mesh for Plaster crack prevention.

FLOORING

High-performance floor screeds, tile adhesives, industrial flooring systems, and waterproofing solutions provide level, durable, and moisture-resistant surfaces - designed to withstand heavy footfall, high abrasion, and continuous usage while ensuring slip safety and ease of maintenance. Glass Fiber Mesh for Screed Reinforcement.

ROOFING

Integrated roofing systems, including waterproofing membranes, protective coatings, sealants, shingles and insulation solutions, deliver weather-tight and thermally efficient performance - ensuring long-term protection against environmental exposure in large-span airports. Glass Wool and Stone Wool insulation for underdeck/ overdeck applications.

SPECIALITY CEILINGS & WALL PANELS

Ecophon designer and acoustic ceilings for airport passenger areas etc. Fade® One Acoustic Plaster; Ecophon® Solo Acoustic Free Hanging Panels; Perforated Gypsum Boards ; Metlance™ Metal Architectural Ceilings; Ecophon® Glasswool Acoustic Wall ceiling panels; SG Anutone® Strand® Woodwool/ Salon® wooden perforated acoustic Ceilings and Wall Panels offer indoor acoustic comfort and design. Gyproc Fire Rated Plasterboard ceiling upto 120mins fire rating.

INTERNAL WALLS & PARTITIONS

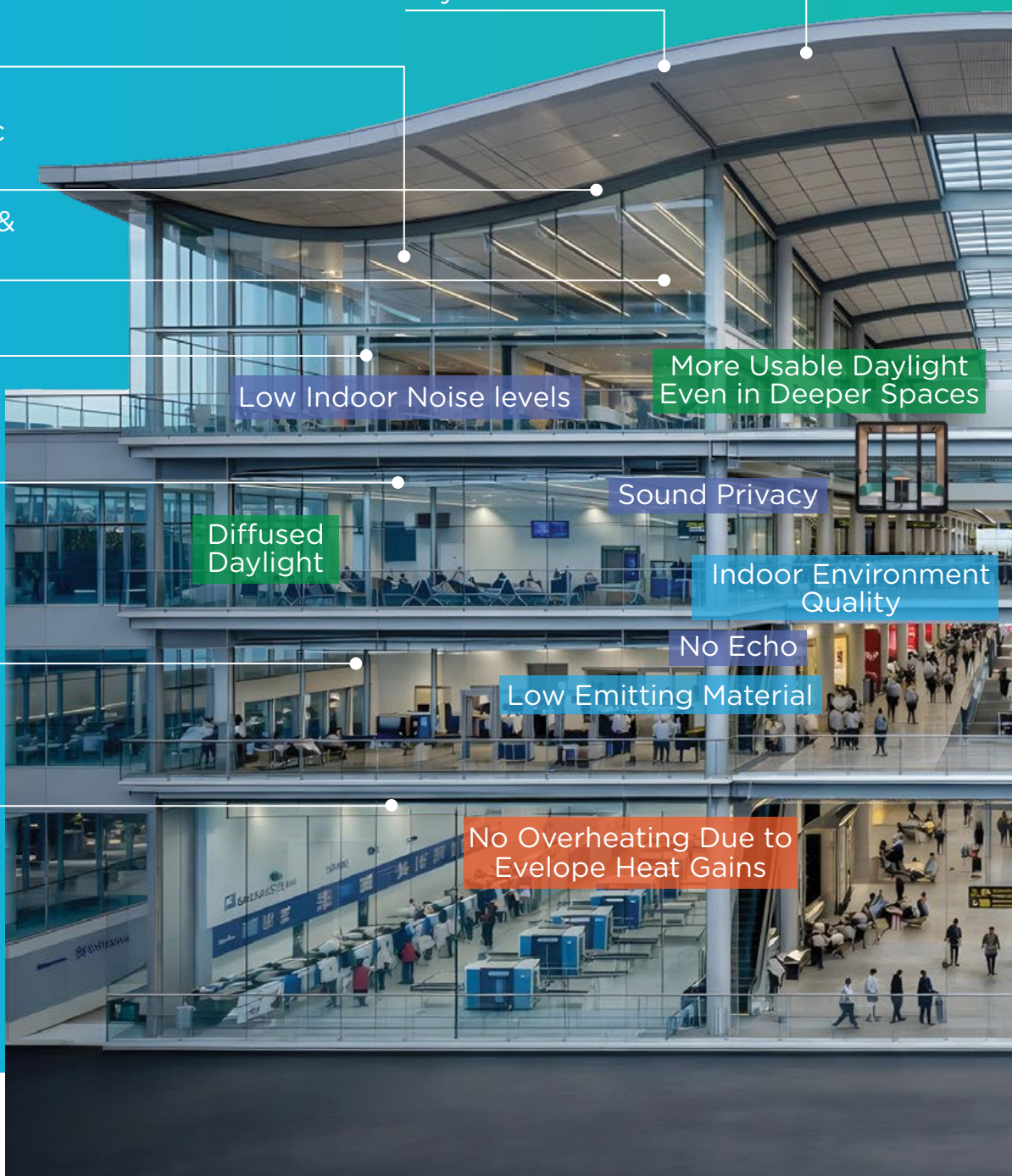
Gypsum Drywalls & Partitions for Dry & Wet Areas, Glass Partitions, Automatic Sliding Doors and Lacquered Walls, Modular Acoustic Pods, Glassfibre Wallcoverings, Gypsum Plaster for Walls and Ceilings, CURTIVIA fire curtains and Vetrotech fire-rated glass system solutions, and Fire-rated Plasterboards from Saint-Gobain Gyproc fortify the internal walls & partition systems of Airports. Acoustic window systems ensure noise control for focused environments. Sound and Fire Insulation for Drywall Partitions. Gyproc Drywall for Fire rating and complementation, Passive fire protection. Glass Fiber Dry Wall Tapes for Gypsum Board Joints. Glass Fiber Mesh for Plaster crack prevention.

VENTILATION

Saint-Gobain CLIMAVER® duct systems offer lightweight, airtight, pre-insulated ducts with excellent thermal and acoustic performance for efficient ventilation of Airports. For added safety, fire-rated duct solutions can be installed. In addition, Tekbond Fire Rated PU Foam and Tekbond High Performance PU Foam are recommended for sealing duct penetrations effectively.

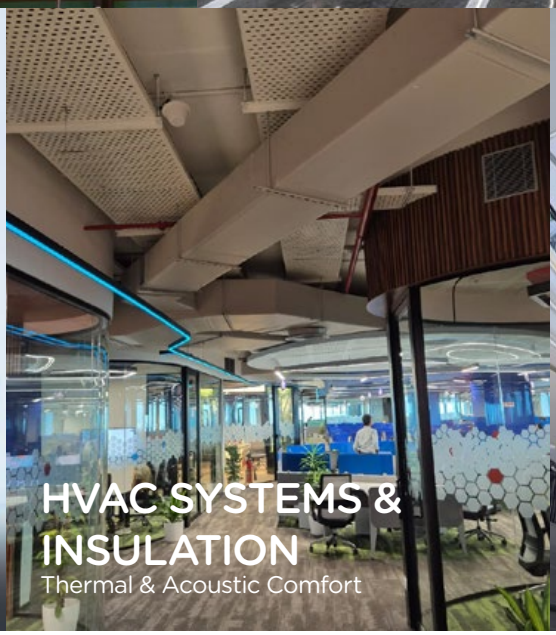
ENABLING MULTI COMFORT AND OCCUPANT WELLBEING

A space is a living environment that directly influences occupant multi comfort and wellbeing — a blend of Visual, Solar, Thermal, Acoustic, Indoor Air Quality and Safety. Explore Saint-Gobain solutions for multi-comfort.



- SOLAR/THERMAL COMFORT
- VISUAL COMFORT
- ACOUSTIC COMFORT
- INDOOR AIR QUALITY
- SAFETY

LIGHT AND SUSTAINABLE SOLUTIONS FROM SAINT-GOBAIN



COMPREHENSIVE PORTFOLIO OF CONSTRUCTION SOLUTIONS

- Clear Glass
- Tinted Glass
- Mirrors
- Solar Control Glass
- Thermal Insulation Glass
- Toughened Lacquered Glass
- Fire Safety Glass System Solutions
- Fire Curtains
- UPVC & Aluminium Doors/Shower Cubicles
- Electrochromic Glass
- Privacy Glass
- Railings
- Hardware, Partitions, Pods
- Wall Coverings
- High Security Glass System Solutions

SAINT-GOBAIN

Plaster Board Drywalls & Dry Lining Systems:

- Dry Area Applications
- Wet Area Applications
- Shaft walls
- Fire Rated Walls
- Acoustic Walls
- Exterior Walls
- Heavy Impact Walls

Ceiling System & Tiles

- Architectural Metal ceilings
- Ceiling Tiles & Board (Gypsum)

Gypsum Plasters

- Value Added Plasters
- High Coverage Plaster
- Moisture Resistant Plaster
- Internal Applications, Accessories

Metal Framing & Accessories

Jointing and Finishing Products

Gyproc Systems & Solutions

gyproc SAINT-GOBAIN

Acoustic Modular Ceiling

Acoustic Free Hanging Panels

Acoustic Wall Panels

Acoustic Plaster

ecophon SAINT-GOBAIN

Drywall Insulation

Façade Insulation

Underdeck Insulation

Flexible Duct

Pre-Formed Pipe Sections

Acoustic Panels

Twigainsul®

Drywall Insulation

Overdeck Insulation

Façade Insulation (Smoke Seal)

Rockinsul™

Pre-Insulated Duct System

CLIMAVER®

Sealants

Aerosols

Adhesives

Accessories

TEK BOND SAINT-GOBAIN

Waterproofing Systems (basement to roof)

Concrete Admixtures

Concrete Repair Systems

Protective Coatings

Industrial Flooring Solutions

Joint Sealants

Structural Adhesives

Cement Grinding Aids

Surface Treatments:

- Wide range of curing compounds
- Shutter release agents

Anchors:

- Chemical anchors for challenging construction needs

Grouts (cement and resin-based anchoring systems)

FOSROC

Concrete Solutions:

- Ready-Mix Concrete
- High Flow Concrete
- Low Carbon Concrete
- Integral Waterproofing
- Challenging Aggregate Solutions
- Self-Compacting Concrete (SCC)
- Underground Construction
- Curing Agents
- Precast (Wet/Dry)
- Demoulding Agents
- Lightweight Concrete

Cement Additives:

- Next Generation Activators
- Performance Activators
- Grinding Aids for Cement
- Masonry Additives
- Grinding Aids for Minerals

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Abrasive Solutions for Surface Preparation & Finishing

- Metal, Wood, Concrete Cutting and Wheels and Discs
- Wall and wood surface finishing discs, sheets and cloth rolls
- Core bits, Drill bits and screw bits

NORTON SAINT-GOBAIN

Tile & Stone Adhesives:

- Cementitious, Polymer Modified, Epoxy/PU Adhesives

Tile & Stone Grouts:

- Cementitious, Epoxy Grouts

Tile & Stone Care:

- Cleaners, Impregnators and Sealers

Waterproofing:

- Cementitious, primers, acrylic, Polyurethane waterproofing

Wall Construction Solutions:

- Adhesives for fixing AAC Blocks

weber SAINT-GOBAIN

WHY PARTNER WITH SAINT-GOBAIN?

Modern buildings demand solutions that minimise environmental impact while enhancing comfort, safety and efficiency.

Saint-Gobain delivers this through a sustainability-led innovation, manufacturing, and specification ecosystem. This is powered by continuous R&D tailored to hot and humid climates. As one of India's largest green, energy-efficient plant networks, Saint-Gobain provides end-to-end specification support and a fully digitalised approach that drives efficiency, accuracy, and low-carbon outcomes.

Continuous innovation is driven by the Saint-Gobain Research India (SGRI), where deep insights fuel advanced material science and rigorous application testing; powering **next-generation, science-backed solutions** for the built environment.

Regional manufacturing ensures consistent availability, reduced logistics emissions and reliable timelines. This is strengthened by Saint-Gobain Research India (SGRI), advanced digital tools and expert technical teams that convert science and innovation into better-performing buildings.

Expert-led advice from a specialised technological group - Design Core, delivers end-to-end specification support, reinforced by accurate modelling and compliance guidance for safe, sustainable designs.

01

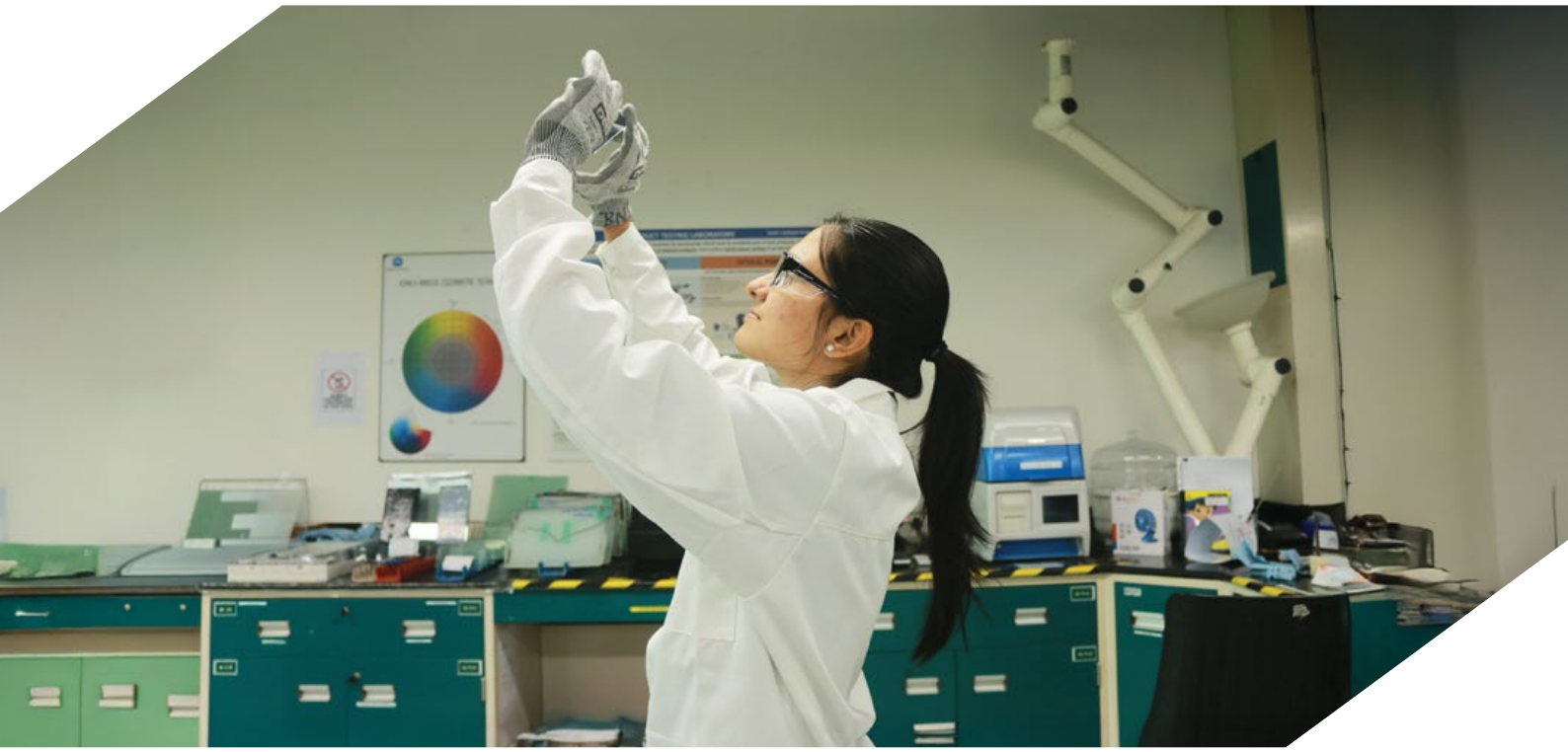
INSIGHTS > SCIENCE > SOLUTIONS
END-TO-END DELIVERANCE

INDIA'S EPICENTER FOR MAKING INSIGHTS A REALITY

Saint-Gobain Research India (SGRI) – India's largest private R&D centre for construction materials and solutions is located at **IIT-Madras Research Park**. SGRI brings together materials scientists, simulation experts and building physicists working on **thermal behaviour**, **acoustics**, **daylight**, **solar control**, **lifecycle impact** and **material safety**.

Insights from this research ecosystem feed directly into the design of **glass**, **insulation**, **gypsum systems**, **ceilings** and **construction chemicals**.

At SGRI, evidence becomes prototypes, **prototypes become validated assemblies**, and these lead to project specifications — ensuring every system not only meets regulatory thresholds but consistently exceeds them.



Lab testing for visual, solar, thermal, acoustic, fire etc.

Prototyping and pilot lines for Indian climatic conditions

Simulation-led development producing validated assemblies

25+ LABS | 200+ PRODUCT LAUNCHES | 250+ SCIENTISTS | 280+ PATENTS

1 OUT OF 4 PRODUCTS SOLD TODAY IN INDIA DID NOT EXIST 5 YEARS AGO

01A

FROM INSIGHTS TO MEASURABLE BUILDING PERFORMANCE

A comparative simulation of a Base Case vs. a Design Case using Saint-Gobain systems demonstrates the impact of material science on building outcomes.

ENVELOPE PERFORMANCE

- Walls improved from **0.695> 0.420** W/m²K glazing from **5.70>1.60** W/m²K
- **SHGC reduced** from **0.85> 0.22** W/m²K
- **Cutting heat gain without compromising daylight**

COMFORT PERFORMANCE

- **Thermal comfort area increased 21%** Operative temperatures dropped **2°C**
- **Glare reduced 34%** With **<2%** daylight variation
- **Acoustic performance strengthened** with **48%** STC improvement

CARBON, ENERGY & EFFICIENCY

- **17** million kg CO_2e reduction **12%** energy savings
- **34%** lower HVAC capacity **454** tonnes concrete and **21** tonnes steel savedy
- **27%** faster installation

The Design Case consistently surpasses compliance across thermal, solar, visual, acoustic and environmental metrics, delivering better comfort, lower energy demand, reduced embodied impact, faster construction and stronger lifecycle value.

WHY THIS MATTERS

01 Direct access to research-backed products and validated assemblies reduces specification risk.

02 Regional manufacturing shortens supply chains and improves predictability.

03 Solutions are developed with decarbonisation targets in mind, helping projects meet regulatory and voluntary sustainability goals.

02

MANUFACTURING EXCELLENCE: GREEN, REGIONAL AND RESPONSIBLE

Saint-Gobain's India operations are built on the principles of combining scale, sustainability and localisation.

GREEN MANUFACTURING FOOTPRINT

Saint-Gobain operates an extensive network of plants across India, strategically located to reduce transport emissions and ensure material availability for regional markets. These facilities integrate renewable energy, waste heat recovery, water circularity and advanced monitoring systems to minimise environmental impact. These initiatives have led to a **34% reduction** in **Scope 1** and **2 emissions** from earlier baselines, amplified by sustained investments in electrification, fuel switching and process optimisation.

LOCAL MATERIAL AVAILABILITY

Regional manufacturing ensures that high-performance glass, specialty ceiling tile, insulation, construction chemicals, waterproofing systems, gypsum boards and adhesives are available consistently across the country. This reduces lead times, stabilises project schedules and limits the carbon footprint associated with long-distance logistics.

SUSTAINABLE MANUFACTURING PRACTICES

Across plants, waste reduction and circularity principles drive production. Glass cullet is recycled back into the float process; gypsum waste is reintroduced into plasterboard manufacturing; rainwater and treated wastewater increase water circularity.

WHY THIS MATTERS

01 Sustainable, regionally distributed manufacturing lowers embodied impacts while ensuring predictable supply.

02 This translates to reduced logistics emissions, consistent quality and dependable timelines, strengthening project certainty and supporting green-building objectives.

03 In large projects with compressed timelines, this alignment between production and proximity becomes a decisive advantage. Saint-Gobain's integrated model strengthens the sustainability credentials of every delivered product.

03

DIGITAL TOOLS FOR PERFORMANCE DRIVEN DESIGN

Saint-Gobain's digital layer accelerates decision-making and reduces design risk. The company provides simulation and specification tools—Calumen/Calumen Live for glazing and performance evaluation is available to design teams for comparative glazing selection and performance modelling.

Calumen supports multi-parameter tradeoffs (U-value, SHGC, VLT, acoustic inputs) and produces outputs suitable for early design and final specification. Saint-Gobain also provides Tech Calc, a versatile engineering and technical calculation tool that simplifies complex mathematical and performance computations.

Tech Calc supports built-in thermal and energy-saving calculations for insulation systems, enabling accurate assessment of material efficiency. The platform automates complex formulas into clear, simplified outputs, reducing manual effort and improving reliability.

Beyond tools, Saint-Gobain offers BIM-ready content and technical integration pathways: from BIM objects to visualisers and specification packages. The firm's BIM capability has been developed over years to deliver interoperable models and data for use in collaborative project environments.

WHY THIS MATTERS

01 Rapid glazing and envelope comparisons with project-specific data (via Calumen) reduce iteration time.

02 Built-in performance calculations with technical validation.

03 BIM objects and digital specs simplify handover and integration into design workflows.

04 Expert simulations (daylight, thermal, acoustic, wind) de-risk design choices and speed approvals.

04

DESIGN CORE: EXPERT-LED TECHNICAL AND SPECIFICATION SUPPORT

Design Core is a specialised technical group that works with architects, façade consultants, acoustic consultants and developers to refine design intent and specification.

The team supports:

1. Daylight & glare analysis
2. Thermal performance and thickness optimisation
3. Wind load checks for façades
4. System Testing, BIM-Revit Modeling/ Families
5. Acoustic modelling for partitions and ceilings
6. Fire and code compliance guidance
7. Concrete Technology (CT) Support

Inputs from Design Core allow projects to validate decisions early, ensure compliance with NBC, ECBC and green frameworks, and document data for IGBC, GRIHA and LEED evidence packages.

DIGITAL ASSURANCE ACROSS THE LIFECYCLE

From concept modelling to final specification and site validation, digitalisation ensures that performance assumptions are not lost through the construction process.

The integration of BIM, software tools, analytics and on-ground technical support creates continuity from design to delivery.

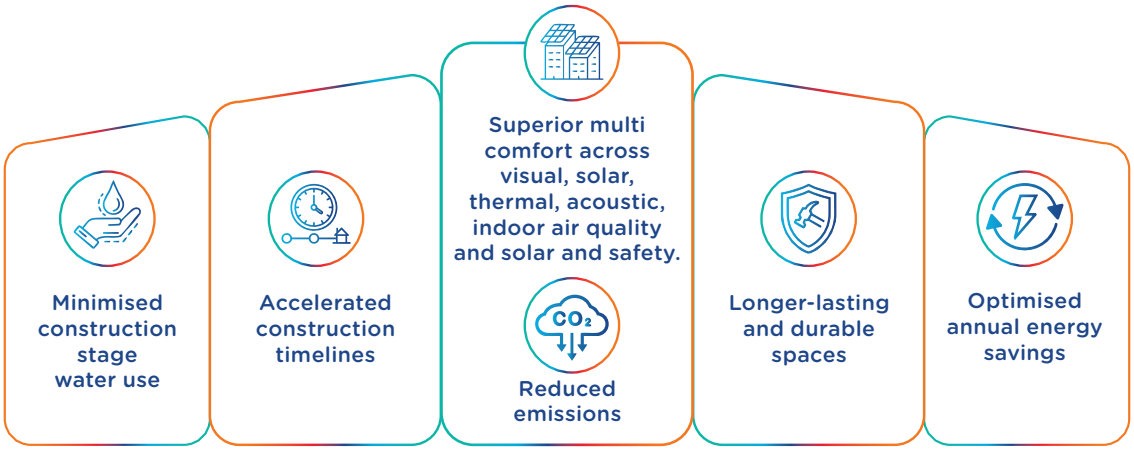
WHY THIS MATTERS

01 Early-stage concept modelling (daylight, thermal, acoustic).

02 Advanced simulation, reliable manufacturing and precise specification support give projects a partner that understands performance not as a claim but as a measurable, science-backed outcome — helping create offices that are efficient, comfortable and ready for the future.

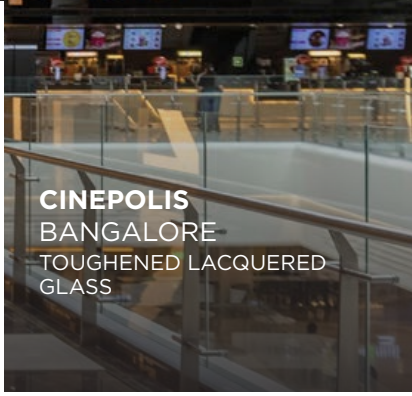
MULTI COMFORT AND OCCUPANT WELLBEING, DELIVERED IN A LIGHT AND SUSTAINABLE WAY.

Saint-Gobain's light and sustainable construction systems deliver tangible value across the entire building lifecycle — reducing impact, enhancing comfort and improving performance where it matters most.



A smarter way to build — lighter on resources, stronger in performance and ready for the future.

Saint-Gobain: Delivering multi comfort and occupant well-being in a light and sustainable way.



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