IPH GLASSES

Mahavir Glass Enterprise | Ahmedabad, Gujarat, India
www.iphglasses.com | mktg@iphglasses.com | +91 70690 01101

ARCHITECTURAL EXPRESSION | CERAMIC PRINTING | PIXCERRA | IS 2553 | EN 12150

Digital Printed Glass

Unlimited Design. Permanent Ceramic. Architectural Precision.

Pixcerra digital ceramic printed glass by IPH Glasses — photorealistic resolution, permanent ceramic durability, and complete design freedom. Custom artwork, solar shading patterns, branding, and bird-friendly glazing at up to 1,400 DPI, fused for the life of the building.

PRODUCT CATEGORY

Architectural Expression
Ceramic Printing
Pixcerra
IS 2553
EN 12150

AUTHORIZED DISTRIBUTOR

Guardian Glass | Saint-Gobain
Kuraray | Technoform | Fenzi

PRODUCT OVERVIEW

Digital Printed Glass — Pixcerra

Where architecture meets permanent ceramic artistry.

Digital Printed Glass under the **Pixcerra** brand uses Tecglass Jetever digital ceramic inkjet technology — printing inorganic ceramic inks onto glass at resolutions up to **1,400 DPI**, then permanently fusing the design into the glass surface during tempering. The result is UV-resistant, scratch-resistant, weatherproof, and permanent — carrying the design within the glass itself, not as a surface film or coating.

1,400 DPI	2440 × 4200 mm	Ceramic Ink	∞ Custom
Maximum print resolution	Maximum panel size	Permanent — UV & weather-resistant	Any design, pattern, or artwork

PRODUCT FEATURES

Key Features

Ultra-High Resolution Printing

Up to 1,400 DPI — enables photorealistic imagery, fine pattern detail, and precise gradient effects on large architectural panels.

Ceramic Ink Technology

Inorganic ceramic inks permanently fused into glass during tempering — not a coating. Cannot peel, delaminate, or fade.

UV & Weather Resistance

Ceramic inks resist UV, moisture, acid rain, and temperature cycling without colour shift over the building service life.

Variable Transparency Control

From fully opaque to translucent gradients — achievable in a single panel, enabling sophisticated solar control and privacy design.

Wide Colour Gamut

CMYK process colours and specialty effects — precise colour matching for branding, design intent, and architectural palettes.

Scratch Resistance

Ceramic printing on toughened glass — high scratch resistance for high-traffic surfaces, flooring, and frequently cleaned areas.

Solar Factor Reduction

Ceramic patterns used as architectural solar shading — reducing SHGC without sacrificing daylighting quality.

In-House Design Team

Pixcerra offers in-house design collaboration — converting design intent to print-ready files with pre-production samples.

TECHNICAL DATA

Technical Specifications

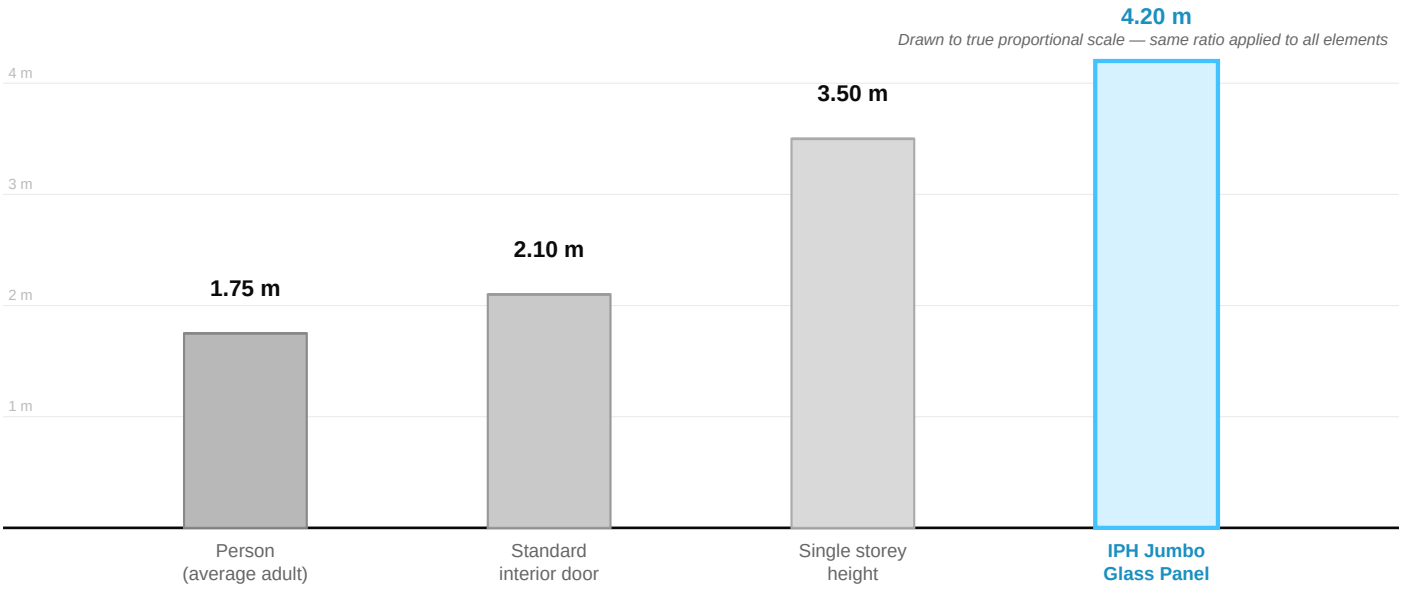
Parameter	Specification
Printing Technology	Tecglass Jetever Digital Ceramic Inkjet

Print Resolution	Up to 1,400 DPI
Ink Type	Inorganic Ceramic Inks — permanently fused after tempering
Maximum Dimensions	2,440 mm × 4,200 mm
Glass Substrates	Clear, Extra Clear, Ultra Clear, Tinted Glass
Post-Processing	Tempering (standard) | Heat Strengthening | Lamination | IGU Assembly
Transparency Control	Fully Opaque to Partial Transparency — variable per design
UV Resistance	UV stable — no colour degradation over service life
Scratch Resistance	Highly scratch resistant — ceramic surface integral to glass
Weather Resistance	Resistant to moisture, acid rain, temperature cycling
Solar Factor	Reduced SHGC achievable through print density selection

MAXIMUM DIMENSIONS

Jumbo Glass Capability & Scale

IPH Glasses processes panels up to **2,440 mm × 4,200 mm** — enabling large, uninterrupted glass surfaces that reduce joint lines and elevate the visual quality of architectural facades, atriums, and interior spaces. The scale diagram below is drawn to true proportion: every bar uses the same fixed scale factor.



Maximum panel width: 2,440 mm — shown separately from height, as glass panels are supplied to project-specific width and height combinations up to these maximum dimensions.

Reference Object	Typical Dimensions	How IPH Glass Compares
Standard interior door	**900 × 2,100 mm**	IPH panel height is 2.0× a standard door height
Typical floor-to-floor height	**3,000 – 3,600 mm**	A single IPH panel can span the full floor-to-ceiling height in one piece
Average adult height	**~1,750 mm**	IPH panel height is 2.4× the height of an average adult

ISO shipping container height	**2,591 mm**	IPH panel height is 1.6× the height of a standard shipping container
Maximum panel width (separate dimension)	**2,440 mm**	Width and height are supplied independently up to these maximums, in project-specific combinations

- At 2,440 × 4,200 mm, a single Pixcerra printed panel can cover a full-height facade bay in most commercial buildings.
- Large format printing minimises visual breaks in patterned facades — design continuity across large glass surfaces.
- Variable transparency zones within a single panel eliminate the need for separate opaque and transparent panels in spandrel applications.

STANDARDS & COMPLIANCE

Applicable Standards

IPH Glasses processes and supplies this product in compliance with the following Indian (IS/BIS), European (EN/ISO), American (ASTM/UL/NIJ), and Australian/New Zealand (AS/NZS) standards:

Standard Code	Title & Scope
Indian Standards — Bureau of Indian Standards (BIS)	
IS 2553 Part 1 : 1990	Safety glass — General requirements (toughened substrate) (India)
IS 14900 : 2000	Transparent float glass — Specification (India)
European Standards — CEN	
EN 12150-1 : 2015	Glass in building — Thermally toughened soda lime silicate safety glass (toughened substrate)
EN 12150-2 : 2004	Glass in building — Thermally toughened safety glass — Evaluation of conformity
EN 14500 : 2008	Blinds and shutters — Thermal and visual comfort — Test and calculation methods (reference for solar factor)
EN 410 : 2011	Glass in building — Determination of luminous and solar characteristics of glazing (SHGC / solar factor)
EN 572-1 : 2012	Glass in building — Basic soda lime silicate glass products — Definitions
European Standards — CEN / ISO	
EN ISO 12543-1 : 2011	Glass in building — Laminated glass — Definitions (for laminated digital printed configurations)
ASTM International — USA	
ASTM C1048 : 2018	Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass (Kind FT substrate)
ASTM C1036 : 2016	Standard Specification for Flat Glass
ASTM E1300 : 2016	Standard Practice for Determining Load Resistance of Glass in Buildings
ASTM C1172 : 2014	Standard Specification for Laminated Architectural Flat Glass (for laminated digital printed configurations)
Australian / New Zealand Standards — Standards Australia / SNZ	
AS/NZS 2208 : 1996	Safety glazing materials in buildings (toughened substrate)
AS 1288 : 2006	Glass in buildings — Selection and installation
AS/NZS 4667 : 2000	Quality requirements for cut-to-size and processed glass

APPLICATIONS

Design Applications

Facade Cladding & Spandrel

Opaque or semi-opaque panels for spandrel glazing, maintaining glass material consistency across the entire facade.

Solar Shading Glass

Ceramic dot, stripe, or gradient prints provide passive solar shading — reducing SHGC without external shading devices.

Architectural Feature Walls

Photorealistic artwork, pattern, or branding at full building scale for lobby feature walls and landmark surfaces.

Privacy & Office Glazing

Translucent or pattern-printed glass for office partitions, meeting rooms, and washrooms.

Wayfinding & Branding

Corporate logos, wayfinding systems, and environmental graphics on glass for airports, hospitals, and campuses.

Balustrade & Railing Glass

Patterned or branded glass for atriums, staircases, and mezzanines.

Retail & Hospitality Display

Custom patterns for shopfronts, hotel lobbies, and luxury retail environments.

Bird-Friendly Glazing

Ceramic dot and stripe patterns at recommended spacings — an effective bird-collision deterrent per American Bird Conservancy guidelines.

Architectural Canopies

Printed glass in overhead applications provides daylight diffusion, glare control, and visual interest.

COMPARISON

Product Comparison

Performance Attribute	Standard Float Glass	Digital Printed Glass (Pixcerra)
Print Permanence	✗ Film/vinyl: 3–7 year lifespan — degrades, peels	**✓ Ceramic ink: Fused permanently — building service life**
UV Resistance	✗ Film fades under UV exposure	**✓ Ceramic ink: UV stable — no colour shift**
Scratch Resistance	✗ Film scratches easily in high-traffic areas	**✓ Highly scratch resistant — integral ceramic surface**
Solar Control	✗ No solar performance from standard film	**✓ Adjustable SHGC through print density — eliminates external shading**
Custom Design	✗ Limited to stock patterns	**✓ Unlimited — photorealistic, custom, bespoke artwork**
Print Resolution	✗ Typically 360–720 DPI for film	**✓ Up to 1,400 DPI — superior detail and clarity**
Safety Compliance	✗ Film not toughenable — safety risk	**✓ Toughened safety glass substrate — IS/EN/ASTM/AS NZS compliant**

MANUFACTURING EXCELLENCE

Quality Assurance

Every panel processed at IPH Glasses passes through a structured, multi-stage quality control process — from incoming raw material to final pre-dispatch inspection.

Raw Material Verification

Incoming float glass and component materials (interlayers, spacers, sealants) are checked against supplier specification before entering production.

Process-Controlled Manufacturing

Furnace temperature, cooling rate, lamination pressure, and IGU assembly parameters are monitored and logged at each processing stage.

Optical Quality Inspection

Glass surfaces are visually inspected for distortion, bow, roller wave, and coating defects prior to dispatch.

Dimensional Accuracy Checks

Panel dimensions, squareness, and thickness are verified against project specification tolerances.

Edge Quality Inspection

Edge finish (rough grind, arrissed, or super polished) is checked for consistency and conformance to the specified finish.

Toughening Process Validation

Surface compressive stress and fragmentation pattern are verified on sample panels from each production batch to confirm heat treatment compliance.

Batch Traceability

Production records link each panel batch to its raw material source, processing parameters, and quality check results.

Final Pre-Dispatch Sign-Off

A final inspection is carried out before packing and dispatch, confirming the panel meets project specification and IPH Glasses' internal quality criteria.

OUR CAPABILITY

Why Choose IPH Glasses?

IPH Glasses — operating as Mahavir Glass Enterprise — is one of Gujarat's most trusted architectural glass processors and authorized distributors for Guardian Glass and Saint-Gobain. We serve architects, developers, facade consultants, and PMC teams from our facility in Kheda, Gujarat.

Authorized Distributor

Guardian Glass and Saint-Gobain — certified supply chain, authentic products with full traceability.

Advanced Processing

Horizontal roller furnace, autoclave lamination, and fully automatic IGU assembly line.

Complete Product Range

Toughened, laminated, insulated, digital printed, curved, anti-burglar, and bullet-resistant glass — all from one processor.

Technical Support

In-house team for glass selection, specification writing, performance calculations, and full project delivery support.

Multi-Stage Quality Control

Raw material verification, in-process inspection, optical and dimensional accuracy checks, and final pre-dispatch quality sign-off on every batch.

Export Experience

Supplying projects across India, East Africa, Congo, Sri Lanka, and expanding international markets.

CONTACT & TECHNICAL SUPPORT

Get in Touch

Head Office & Factory	Sales & Technical	Digital Presence
IPH Glasses Mahavir Glass Enterprise Kheda, Gujarat — India	+91 70690 01101 mktg@iphglasses.com Sales: Shalin Shah	www.iphglasses.com linkedin.com/company/iphglasses instagram.com/iphglasses

Our technical team is available to assist with glass selection, specification writing, performance calculations, and project-specific requirements. Contact us to schedule a technical consultation or to request samples and project pricing.

This catalogue is for reference purposes. Specifications subject to change. Consult IPH Glasses technical team for project-specific recommendations.