

# GLASS BRICKS





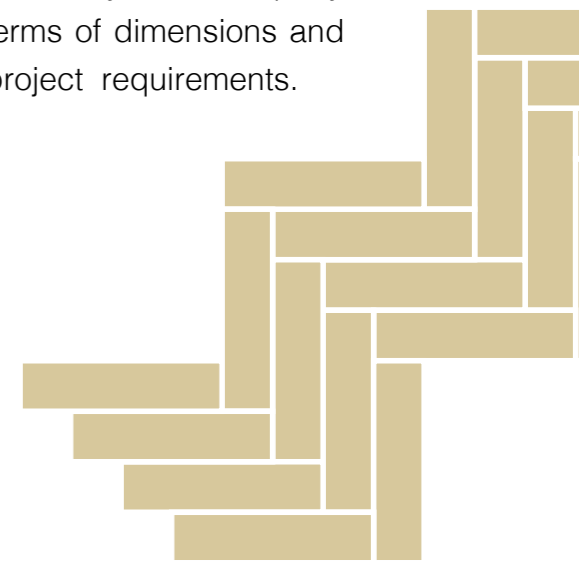


## GHAZVIN GLASS COMPANY

### The Legacy Continues...

The Ghazvin Glass Company initiated its glass production operations in 1968 by commissioning its first melting furnace to manufacture flat glass. Subsequently, starting in 1976, the company diversified its product range by introducing patterned glass for construction purposes. Since then, the company has been consistently delivering a wide array of clear and colored tempered glass with various designs, ranging in thickness from 4 to 12 millimeters. In April 2023, the Ghazvin Glass Company implemented advanced technological enhancements to its production line, enabling the production of glass exceeding 50mm in thickness, available in diverse patterns and colors, to cater to the unique requirements of designers. Furthermore, the company offers customizable continuous and integrated glass strips, tailored to meet specific market demands, with adjustable length, width, and thickness.

In 2024, the company expanded its product portfolio by introducing a diverse range of glass bricks, including transparent, opaque, and tinted variants, designed to adhere to traditional brick dimensions and standards, facilitating seamless integration. Additionally, the company offers customization options for glass bricks in terms of dimensions and colors, providing flexibility to meet individual project requirements.

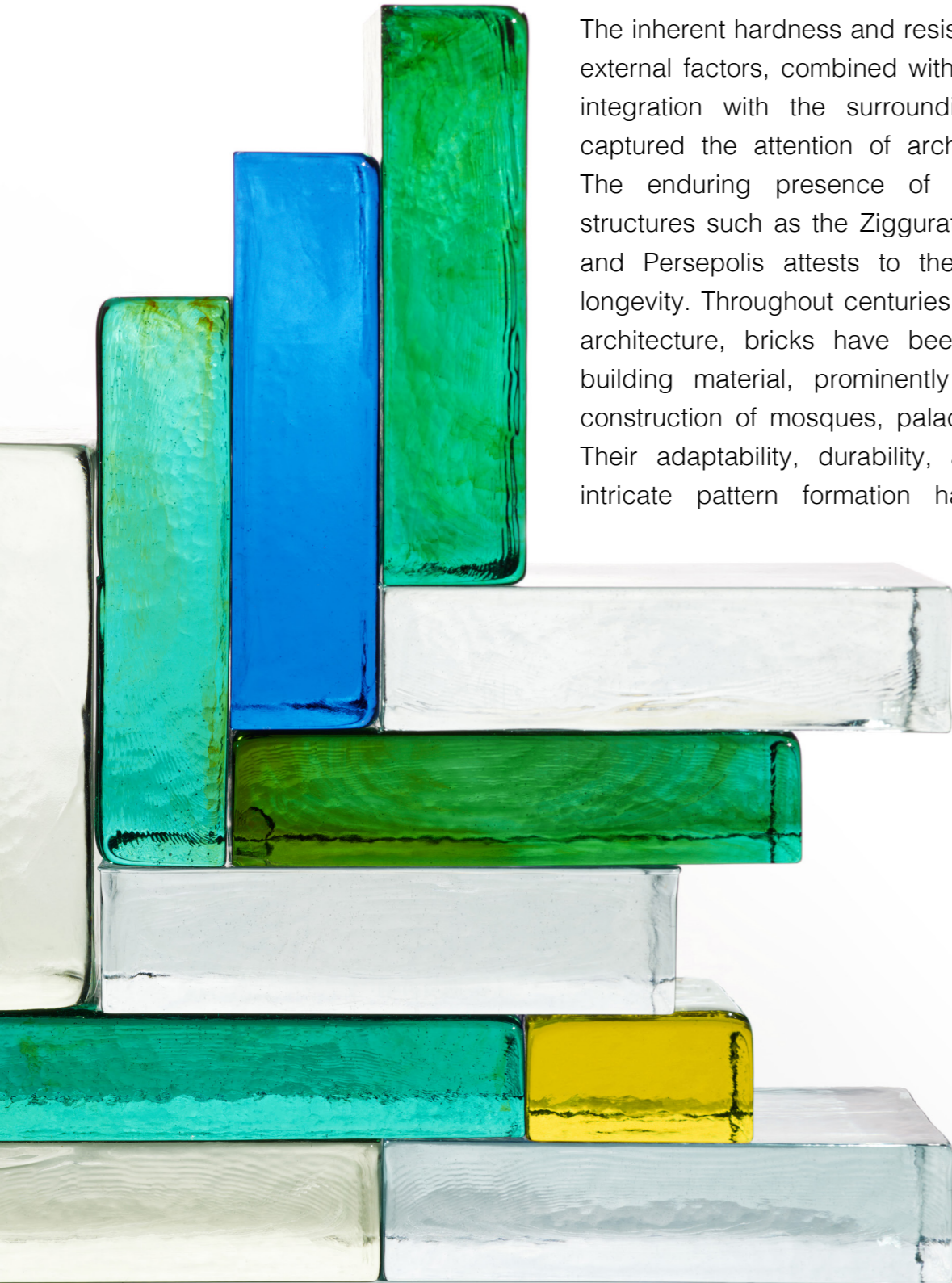




## THE IMPORTANCE OF BRICKS

In Iranian architecture, bricks serve as both a decorative element and a structural component. The inherent hardness and resistance of bricks to external factors, combined with their harmonious integration with the surrounding space, have captured the attention of architects worldwide. The enduring presence of bricks in iconic structures such as the Ziggurat of Chaghazanbil and Persepolis attests to their resilience and longevity. Throughout centuries of Iranian-Islamic architecture, bricks have been a fundamental building material, prominently featured in the construction of mosques, palaces, and schools. Their adaptability, durability, and capacity for intricate pattern formation have made them

indispensable in realizing the complex geometric designs prevalent in Iranian-Islamic art and architecture. Architects have skillfully employed bricks to fashion complex shapes such as arches, domes, and minarets, as well as to craft decorative elements like calligraphy and geometric patterns. In 20th-century architecture, a retro-futuristic approach propelled bricks to the forefront. The production of industrial bricks in diverse colors, including gray, and the advent of glass bricks transformed them into essential mediums for Art Deco architects and their adherents. Notably, even in towering structures like the 319-meter-high Chrysler Building, bricks were extensively utilized. From the mid-20th century, glass bricks emerged as a prominent feature in architectural design. Characterized by their transparent and geometric nature, glass bricks symbolized modernity, innovation, and the technological optimism of the era. Today, glass bricks are hailed for their sustainable architectural properties, offering high resistance and light-transmitting capabilities that reduce energy consumption.





## GLASS BRICKS

Glass bricks represent an innovative fusion of the transparency of glass and the structural integrity of traditional bricks. Their ability to endure compressive, and tensile stresses makes them suitable for both interior and exterior architectural applications. Particularly prevalent in architecture, glass bricks facilitate the ingress of natural light into indoor spaces while preserving privacy. Available in a variety of sizes, shapes, and colors, they empower architects and designers to craft distinctive and contemporary designs. Glass bricks are especially advantageous for enhancing natural light in work environments and can be used in partitions to optimize interior space lighting and energy performance. In modern architecture, these versatile bricks find use in load-bearing walls, partitions, floors, and even furniture. Their compatibility with traditional clay bricks, in terms of size and conventional mortar use, allows for diverse patterns and color combinations. This compatibility enables the integration of glass and clay bricks to achieve aesthetically appealing designs.

- Transparent, Semi-Transparent, And Opaque
- Solid-Colored & Marbled Patterns
- Standard Construction Industry Dimensions (Bespoke)
- Compatible With Conventional Glass Adhesives & Traditional Mortars
- Environment & Eco-Friendly
- High Thermal Resistance
- Moisture Proof & Sound Insulating
- Resistance Against Corrosion & Other Environmental Factors

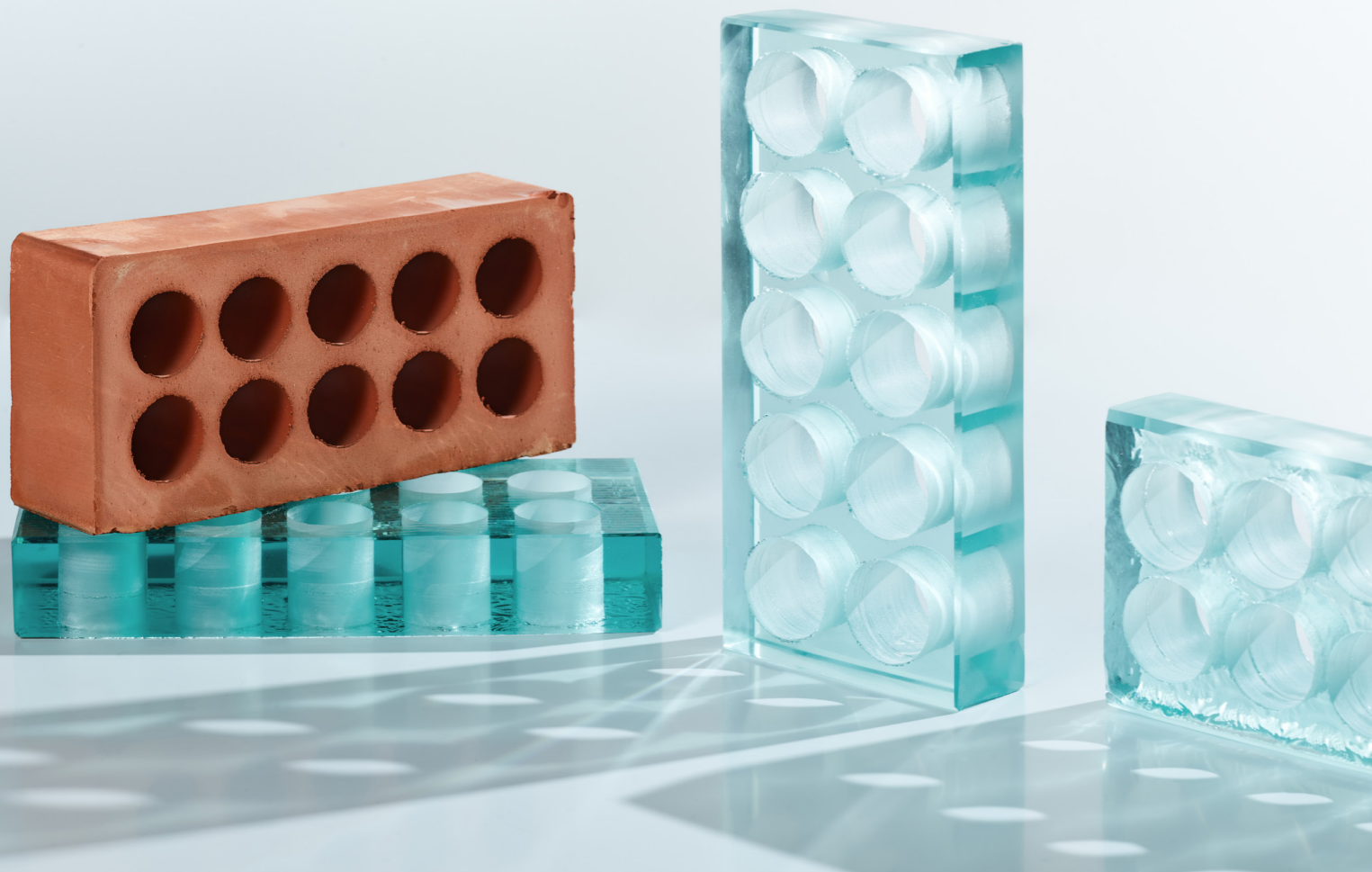




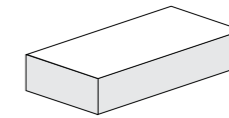
## THE HARMONY OF GLASS & CLAY

Glass bricks are crafted to emulate the cohesive appearance of traditional brick structures while enabling natural light to permeate the area. This architectural element is favored by esteemed designers and architects for its ability to create striking features that are further enhanced by the infiltration of light. Unlike glass blocks, solid glass bricks offer greater versatility, allowing for both horizontal and vertical use, as well as the creation of diverse designs. They can be installed using standard mortar, making them compatible with conventional bricks.

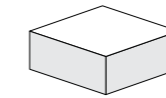
- Structural Similarity With Traditional Bricks
- Compatibility With Conventional Mortars
- Full-Brick & Half-Brick Sizes
- Produced in Different Colors (Such as Traditional Glazed Bricks)
- Solid & Perforated Models
- Customizable Colors & Patterns



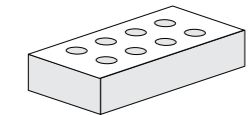
## VARIETIES OF GLASS BRICKS



FULL-FLEDGED

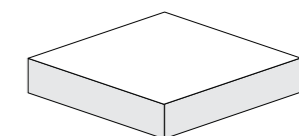
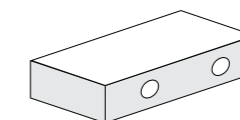
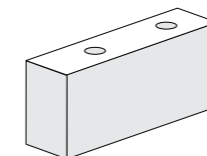
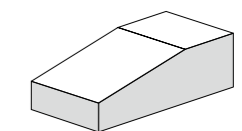
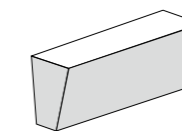
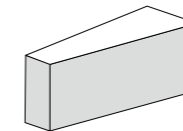
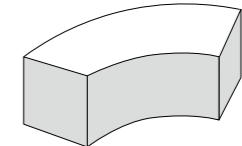
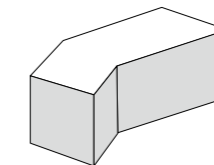
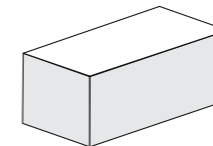
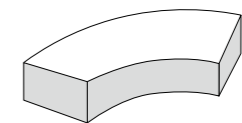
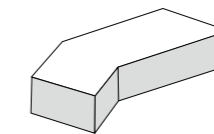
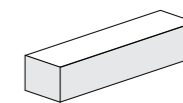


HALF-BRICKS



PERFORATED

BESPOKE







IN THE HUES OF PERSIAN ARCHITECTURE



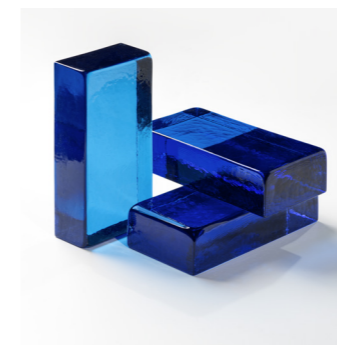
## UNBOUND DESIGNS

Glass bricks are available in various sizes, including standard construction bricks and half-bricks, with customizable options. These bricks combine the properties of glass with those of traditional clay bricks, allowing for different transparencies and colors such as transparent, matte, colored, frosted, and tailored variations. The color of the glass brick impacts light transmission and the aesthetic appeal of architectural designs. For instance, opaque and colored glass bricks offer privacy while enabling light penetration, whereas clear glass bricks maximize light transmission. Designers and architects can select from an array of colored glass bricks to produce distinct visual architectural elements in buildings, akin to the use of traditional glazed bricks for creating unique designs.



## TINTED BRICKS

- Ultra-Clear Transparent Bricks
- Clear Transparent Bricks
- Green Bricks
- Blue Bricks
- Bespoke Colors
- Special Order Patterns (Fused, Marbled,...)



BLUE



GREEN



ULTRA-CLEAR






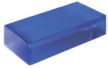
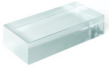

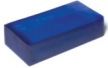
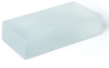
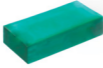



BESPOKE COLORS





## TRANSPARENT, MATTE & POLISHED BRICKS

Glass bricks are manufactured using three distinct methods: transparent (with a natural surface), matte, and polished. The matte surface effectively maintains privacy while allowing the passage of most light. When used alongside traditional bricks, these glass bricks introduce natural light into a secure environment. Furthermore, the matte surface of the glass can be utilized in settings that require a more subdued ambiance, such as backyards, cafes, and offices, dispersing light while preventing direct sunlight from entering the space.

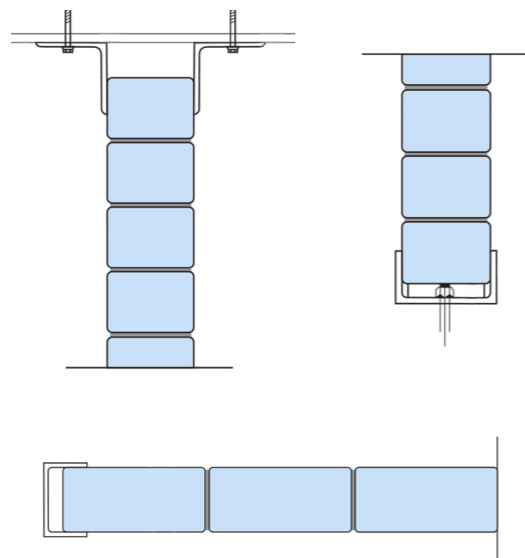
	BLUE	ULTRA-CLEAR	GREEN
TRANSPARENT			
FULL-POLISHED			
MATTE			
HALF-BRICK			





## GLASS BRICK WALL CONSTRUCTION

When working with decorative brickwork using glass bricks, it is advisable to ensure that the bricks are restrained on at least two sides, such as the ground and one vertical side, up to a maximum height of approximately one and a half meters. Two-way barriers should be constructed using C-shape steel sections with a minimum depth of three centimeters. In the case of a wall on three sides with a distance of three meters between columns, the construction of a wall up to three meters high is feasible. For walls exceeding this height or with larger column spacing, the upper part of the wall must be restrained using two L-shape sections with a minimum depth of three centimeters. Additionally, utilizing perforated bricks with reinforcement significantly enhances the walls resistance, enabling the construction of taller walls.



Top-Left: Restraining the top of the wall with the help of an L-shape section that is bolted to the ceiling after construction.

Top-Right: Restraining the bottom of the wall with the help of a C-shape section screwed into the ground.

Bottom: Restraining the vertical edge of the wall with the help of a C-shape section connected to the ceiling and floor or screwed to the column.

## TECHNICAL SPECIFICATIONS

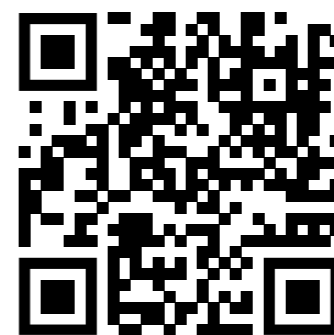
DIMENSIONS	
LENGTH	20 cm
WIDTH	10 cm
HEIGHT	5 cm
WEIGHT	2.5 kg
UNITS PER SQUARE METER	
WITH MORTAR	70
WITH ADHESIVE	100
POROSITY	SOLID
COMPRESSIVE RESISTANCE	> 30 MPa
MORTAR ABSORPTION	%0
LIABILITY TO EFFLORESCE	0
WEATHERING RATE	0
MOISTURE ABSORPTION	%0







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Beheshti St., Tehran - Iran

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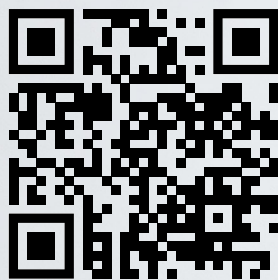
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