

WELCOME TO  
AZARAKHSH  
BRICK  
COMPANY



دفتر فروش :  
قم، بلوار امام رضا (پیچ فردوس)، مجتمع فردوس

شماره تماس : 0912 227 8500 02538203555

International  
Refractory  
Brick & Ceramic Group





# 2 0 2 2 Reference Catalogue

## How partnership leads to win - win situation

International manufacturer group with the support of specialized personnel and equipments and with the set of modern technologies and possibilities around the world is ready at any time that you wish to actualize your dream.



# SUCCESS



مجموعه حاضر با هدف بالا بردن سطح آگاهی شما در مورد آجر و به منظور اطلاع رسانی بیشتر و انتخابی بهتر تهیه و تدوین گردیده است. چنانچه نیاز به اطلاعات بیشتری در این زمینه است لطفاً به وب سایت و صفحات اجتماعی این شرکت، با نشانی ذیل مراجعه نمایید.

The current text has been prepared for your further information about brick should you require having any further information . please visit us at



A Z A R A K H S H B R I C K  
w w w . a z a r a k h s h . i r

# Welcome To AZARAKHSH Company

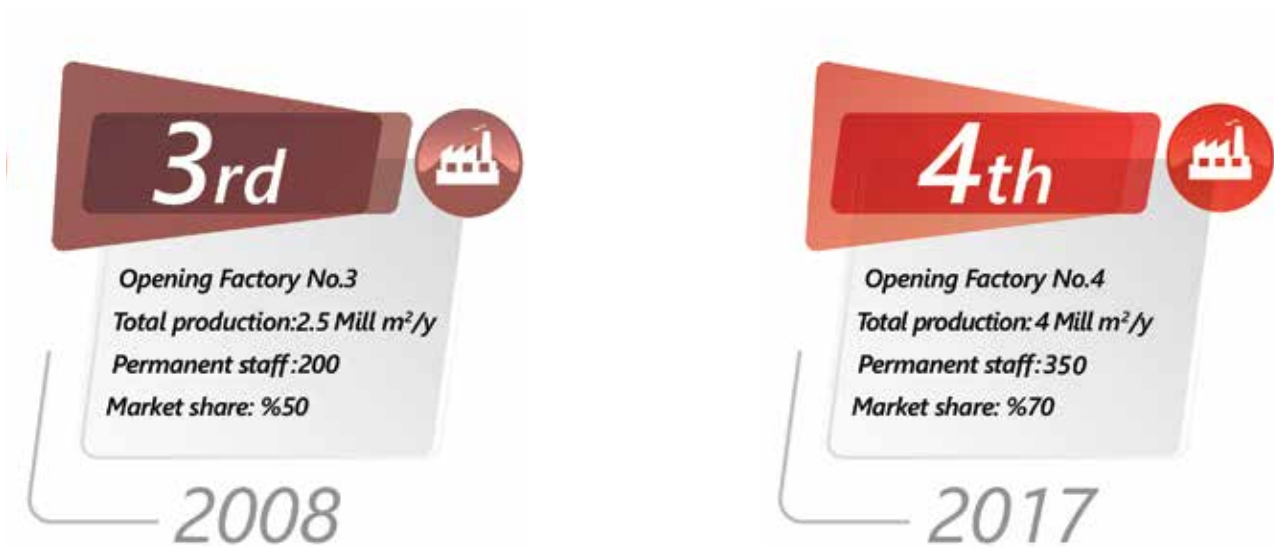
نگرش مردم نسبت به پدیده‌های اجتماعی در تحقق آرمان‌ها و رفاه مردم جامعه نقش تسهیل کننده‌ای دارد. روزگاری هدف از تهیه مسکن، مصون نگه داشتن انسان از سرما، گرما و خطرهای پیرامون انسان بود اما امروزه ساخت و ساز تحت تاثیر مهندسی معماری و صنعت ساختمان سازی قرار گرفته و انسان در مسیر تامین مسکن، به بهترین و زیباترین می‌اندیشد. به همین دلیل نمای ساختمان از اهمیت خاصی برخوردار شده و شناخت و استفاده از مصالحی که این نیازها را برآورده سازد در اولویت قرار گرفته است.

«آجر» یکی از رایج‌ترین مصالح ساختمانی است که علاوه بر خصوصیات ذاتی آن مانند: پایداری در برابر سرما، گرما و رطوبت، زیبایی ظاهری آن نیز مورد توجه همگان قرار گرفته است. این خواص باعث شده آجر به عنوان یکی از پرمصرف‌ترین مصالح در ساختمان‌ها مورد توجه قرار گیرد.

زیبایی و الگوی حاصل از آجر چینی باعث شده آجر به صورت نما در داخل و خارج بنا مطرح گردد و هویتی خاص به ساختمان ببخشد. استفاده از آجر برای کفپوش، پله و محوطه سازی فارغ از مقاومت مطلوب آن، ویژگی‌های اقلیمی این عنصر ساخت و ساز را در تمام شرایط جوی به نمایش می‌گذارد.

حالا بیش از دو دهه است که توانمندی‌ها، اطلاعات فنی بالا و روش‌های نوین به همراه امکانات فراوان مجموعه آذرخش، این امکان را فراهم نموده تا علاوه بر مدرن بودن آجر نسوز نما تولیدی این گروه، مسیری برای شکفتن روح حساس و زیباشناس معماران فراهم گردد. البته آجر تنها وسیله شناخت این زیبایی روحی نیست، بلکه در مراحل شکل گیری ساختمان از منظر زیبایی شناسی، عوامل بسیاری دخیل هستند، ولی تفاوت بین آن‌ها در این است که آجر قابلیت ایفای هر ایده‌ای را دارد و با وجود گذشت قرن‌ها از پیدایش آن هنوز مدرن و کارآمد است. گروه بین المللی کارخانجات فرآورده‌های نسوز آذرخش با بهره گیری از متخصصان کارآزموده و استفاده از مدرن ترین فناوری‌های روز دنیا و با رعایت قوانین ایزو ۹۰۰۱ و استانداردهای بین‌المللی، توانسته بیشترین تنوع و ظرفیت را در تولیدات خود به وجود آورد. دامنه تولیدات این گروه از طرح‌های سنتی و آنتیک تا مدرن گسترش دارد. این گروه شما را دعوت می‌کند تا با نگاهی عمیق و دقیق به تولیدات این مجموعه بر اساس سلیقه و نیاز خود، بهترین‌ها را انتخاب نمایید. بهترین‌ها شایسته شماست!

People's attitudes to social phenomena may play a facilitating role in fulfilment of their goals and welfare. One day, the purpose of dwelling was to be protected from coldness, warmness and hazards, but today the purpose of building construction has been affected by architectural and construction engineering, and human think about dwelling as the best and most beautiful ones. For this reason, facade has a great importance in building industry today. Therefore, identification and application of materials which may fulfil these needs have been prioritized. One of the most common construction materials is brick. In addition to its resistible against coldness, warmness and humidity, its apparent beauty has been paid in attention. These characteristics have led the brick to be used most commonly in the world. The beauty and pattern of brickwork has made it to be used for inner and outer facade of buildings and provide a particular identity for building. Bricks can be used for flooring, staircase flooring and or construction and area construction excluding its favourable strength. In addition, climatic properties of these desert materials represent their durability under different climatic circumstances. In this regard, abilities, having high technical information and modern methods together with vast facilities of Azarakhsh group have provided the path of prospering sensitive and aesthetic spirits of architects in addition to modernity of facade bricks produced by this group. Of course, the brick is not the only means of identifying this spiritual beauty. In fact, there are many factors, from the view point of building aesthetics, which play role in building construction. However, the difference among them originates from the fact that any ideas can be applied by brick and it is still modern and applicable despite pass of centuries. Benefiting from qualified experts, using state of the art technologies and observing ISO 9001 standard rules as well as other international standards, Azarakhsh International firebrick products have provided the vastest diversity and capacity for production of its products. The scope of our production ranges between antique to modern products. We invite you to select the best of our products with accurate observation based on elegance and needs. The bests deserve you.

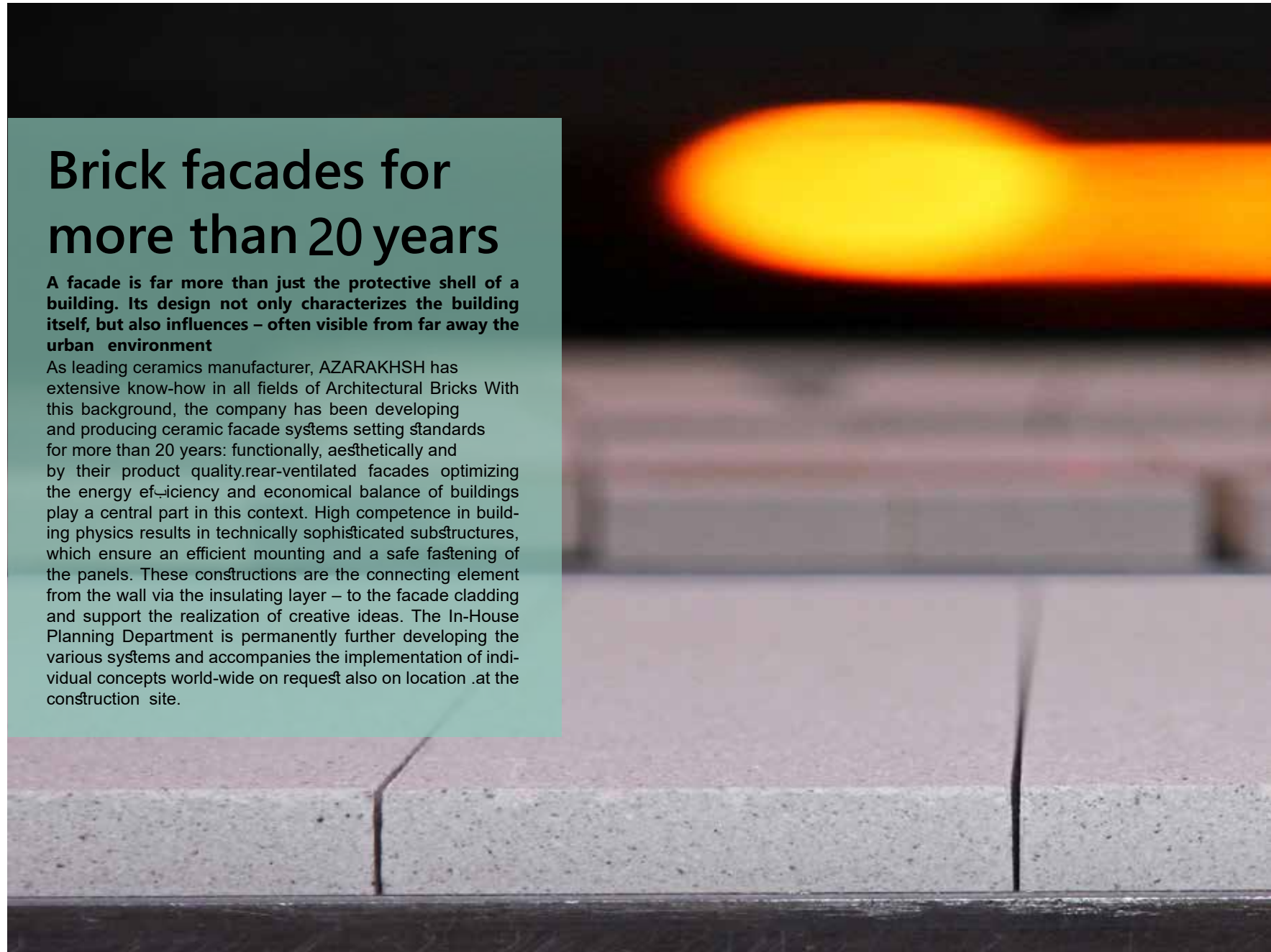




# Brick facades for more than 20 years

**A facade is far more than just the protective shell of a building. Its design not only characterizes the building itself, but also influences – often visible from far away the urban environment**

As leading ceramics manufacturer, AZARAKHSH has extensive know-how in all fields of Architectural Bricks. With this background, the company has been developing and producing ceramic facade systems setting standards for more than 20 years: functionally, aesthetically and by their product quality. rear-ventilated facades optimizing the energy efficiency and economical balance of buildings play a central part in this context. High competence in building physics results in technically sophisticated substructures, which ensure an efficient mounting and a safe fastening of the panels. These constructions are the connecting element from the wall via the insulating layer – to the facade cladding and support the realization of creative ideas. The In-House Planning Department is permanently further developing the various systems and accompanies the implementation of individual concepts world-wide on request also on location .at the construction site.





گروه بین‌المللی کارخانجات آجر نسوز نما آذرخش با استعانت از خداوند متعال، همیاری پرسنل و متخصصان فعال و بهره‌گیری از معادن انحصاری خود و با استفاده از مرغوب‌ترین مواد اولیه موجود در کشور، برای تامین نیازهای روزافزون صنعت ساختمان به انواع فرآورده‌های نسوز و با هدف ایجاد درآمدهای ارزی پایدار برای کشور، در سال ۱۳۷۶ واحد شماره یک خود را با ظرفیت سالانه ۱۵۰,۰۰۰ تن انواع مواد نسوز و آجر نمای نسوز در شهرک صنعتی شکوهیه تاسیس نمود. واحد شماره دو این شرکت در سال ۱۳۸۲ با پیشرفته‌ترین ماشین‌آلات روز دنیا با ظرفیت سالانه ۱۸۰,۰۰۰ تن تولید انواع آجرهای نسوز نما ساختمان در شهرک صنعتی محمود آباد قم تاسیس گردید. پس از بازاریابی‌های گوناگون در سطح بین‌الملل، آذرخش واحد شماره سه خود را در سال ۱۳۸۷ با ظرفیت سالانه ۶۰,۰۰۰ تن انواع آجرهای نسوز نما و کف ساختمان تاسیس و به بهره‌برداری رساند. این سه واحد تولیدی که تحت نام «شرکت بین‌المللی سرامیک‌های نسوز آذرخش» در گروه بین‌المللی آذرخش فعالیت می‌کنند، پس از بهره‌برداری، بزرگ‌ترین تولیدکننده انواع فرآورده‌های نسوز نماهای ماندگار ساختمان با کیفیت عالی و مشابه خارجی در سطح خاورمیانه و تنها تولیدکننده انواع آجر نسوز صفحه‌های تزئینی در ابعاد بزرگ در کشور بوده و افتخارهای متعددی در سطح بین‌الملل برای کشور به ارمغان آورده است. این گروه به منظور توسعه روزافزون صادرات و ارزآوری و همچنین جهت کارآفرینی در کشور در راستای ارتقاء و اعتلای میهن عزیزمان، واحد شماره چهار خود را تحت عنوان شرکت «بین‌المللی توسعه آجر نسوز آذرخش» در شهرک صنعتی محمود آباد قم تاسیس نمود. این واحد با مساحت ۶۰,۰۰۰ متر با ظرفیت سالانه ۳۶۰,۰۰۰ تن را تولید می‌کند.



By the assistance of God, collaboration of active staffs and experts and benefiting from its exclusive mines as well as using the most premium raw materials (existing in Iran), **Azarakhsh** Co. has established its unit (factory) No.1 with annual capacity of 15,000 tons of refractory bricks and products since 1997 in Qom's Shokooohieh Industrial Town with pre-determined goals to provide foreign currencies. It then established its second factory under the name of **Azarakhsh** Qom Refractory products with state of the art machineries with annual capacity of 18000 tons of façade refractory bricks in Qom's Mahmoodabad Industrial Town. After vast international marketing, it erected its third factory under the name of **Azarakhsh** Qom International Refractory Ceramics Co. with annual capacity of 60000 tons of façade and floor refractory bricks. At the moment, **Azarakhsh** International Group is one of the biggest producers of refractory products in Middle East (with high quality and competitiveness with foreign prototypes) for long-lasting facades of buildings. It is also the biggest producer of big-size planar refractory bricks in the state. **Azarakhsh** group has gained many international honors for Iran. For the purpose of ever-increasing export development and suppleness of foreign currencies and glancing the bright horizons of the state promotion and excellence, this group has established its fourth factory under the name of **Azarakhsh** International Co., Development of Refractory Products, with annual capacity of 360,000 tons. This factory, which is 60,000 Sq. m. in area, is located beside the third factory and produces different kinds of special and façade refractory bricks.



# WHY CHOOSE BRICKS?

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## SOLID INVESTMENT

Building with bricks equals fewer upfront costs and virtually no ongoing maintenance costs, as well as energy bill savings. When it's time to sell, brick rates well because it's trusted over newer cladding materials that haven't stood the test of time.



## ENERGY EFFICIENT

Brick insulates in a way most materials do not. By following good design principles and combining bricks with insulation, your home will keep warm in winter and cool in summer, so you'll love coming home.



## CREATIVE COLOUR & CHOICE

With our diverse range of sizes, shapes and textures, and over 180 colours, we have a brick to meet your needs. With smart design, blending of brick types and diverse bricklaying techniques, the options with bricks are truly endless.



## STRONG & SAFE

Bricks are permanent. They're weather and age proof. Bricks don't get tired like other man made materials. They won't twist or warp, rot or decay, erode or dent. They are resistant to the extremes of the Australian climate and being non-combustible, they don't assist the spread of fire.



## LOW MAINTENANCE

Bricks require virtually no upkeep or repairs, avoiding ongoing costs. Unlike other products, the colour is baked into the product so it lasts for a lifetime. Remember, render will need to be repainted over time, an important fact to consider when looking at the 'whole-of-life' cost of your home.



## SOUND REDUCTION

The density of brick makes for a quiet home, with dramatically reduced external sound, such as aircraft, road traffic and noisy neighbours. Brick can also reduce noise transfer within the home when used on internal walls.





باد، باران، سرما، گرما و هجوم جانوران درنده و گزنده محفوظ نگاه دارد. آجرها مصالحی هستند که به صورت صنعتی تولید و جایگزین سنگ شده‌اند و در حقیقت، سنگی ساخته دست بشر هستند، سنگی دگرگون که از تغییر وضعیت خویش پدید آمده است. این گروه از مصالح که اولین تولید صنعتی انبوه از مصالح ساختمانی به ساخت دست بشر به شمار می‌آیند، بر اساس نوع مواد اولیه، روند تولید و محل مصرف به انواع متنوعی تقسیم می‌شوند. «آجرهای رُسی» که اولین و فراوان‌ترین آنها هستند، قدمت چند هزار ساله دارند. با پیشرفت فناوری و علم شیمی انواع بی شماری از آجرها با کیفیت‌های مختلف، ابعاد و شکل ظاهری متنوع راهی بازار مصرف شده‌اند و امروز شاهد تنوعی چشمگیر از این نوع محصولات هستیم.

آجر یا آجور یا آگور واژه‌ای یونانی است که به خشت‌هایی گفته می‌شد که احکام و فرامین دولتی روی آن حک می‌گردید و سپس با پختن این خشت‌ها، نوشته‌های روی آن پایدار می‌شد. پاسخ به این سؤال که «پیدایش آجر چه زمانی صورت گرفته؟» بسیار سخت است. آیا می‌توان پیدایش آجر را با پیدایش آتش همزمان دانست؟ بدین صورت که گل موجود در کناره اجاق‌های غذای انسان‌های اولیه پخته شده و سخت‌تر از کلوخ‌های همجوار خود گردیده و با مشاهده آن بشر اولیه قطعه‌ای از آجر را کشف نموده است؟

آجر یکی از مصالح ساختمانی است که با خلق و خوی بشر بسیار سازگار بوده و در هر دورانی از تاریخ به نوعی مورد استفاده قرار گرفته است. ابتدا بشر زندگی غار نشینی را پشت سر گذاشته و فکر تهیه سر پناه در ذهن او ایجاد شد تا خود را از گزند عوامل جوی مانند



# History of **Brick**

Brick comes from a Greek name and is called to adobes which were once used to engrave sovereign orders. These adobes were then baked (heated) and encripts were appeared on them. There is no time accuracy for when the Brick was made.

It may be attributed to the advent of fire. Possibly, the mud beside fire places set by the early humans was baked and became harder than the surrounding lump mud. When the early humans observed this phenomenon, they had discovered a piece of Brick. Brick is one of the construction materials which have congruency with humankind temperament. In addition, it has been used at any times in the history in some kind. At first, the humankind dwelled in caved.

Then, they decided to find a shelter to protect themselves from atmospheric factors

such as wind, rain, coldness, warmness and the invasion of predators and stingers. Bricks are the materials produced industrially and substituted by the stone. In fact, Brick is a man-made stone which has been deformed from its original nature.

This group of construction materials which is considered as the first industrially mass produced construction material by the human is classified into different types based on the type of raw materials, production procedure or place of use. Argillous or clayey Bricks which are the first and most abundant have ages of thousands of years. Through advancement of chemical technology and science of chemistry, countless types of Bricks with different qualities, sizes and apparent form have been offered to market. Today, we can observe vast types of these products.

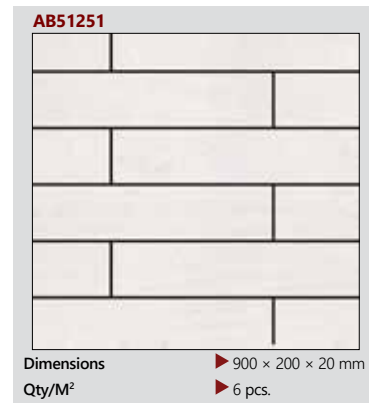
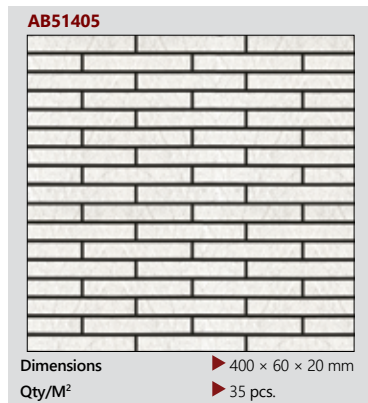
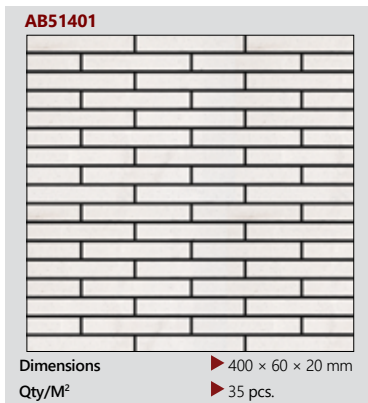
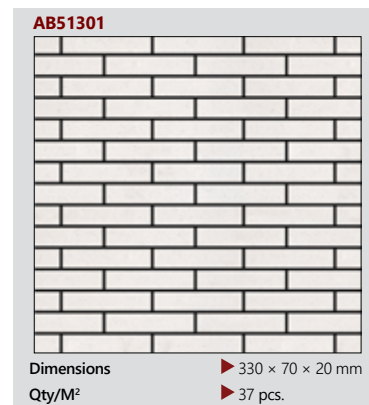
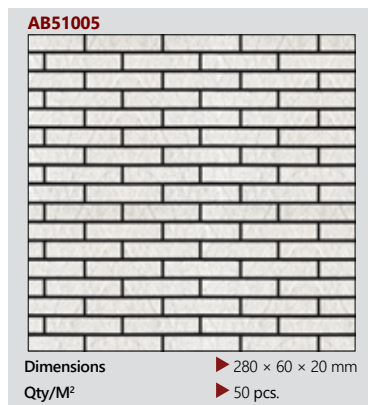
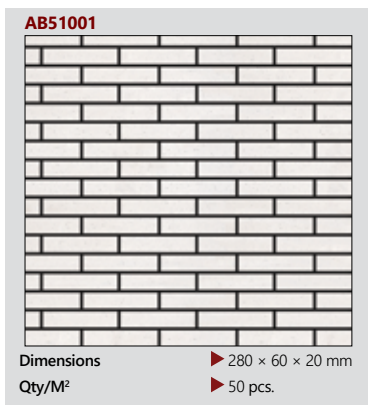


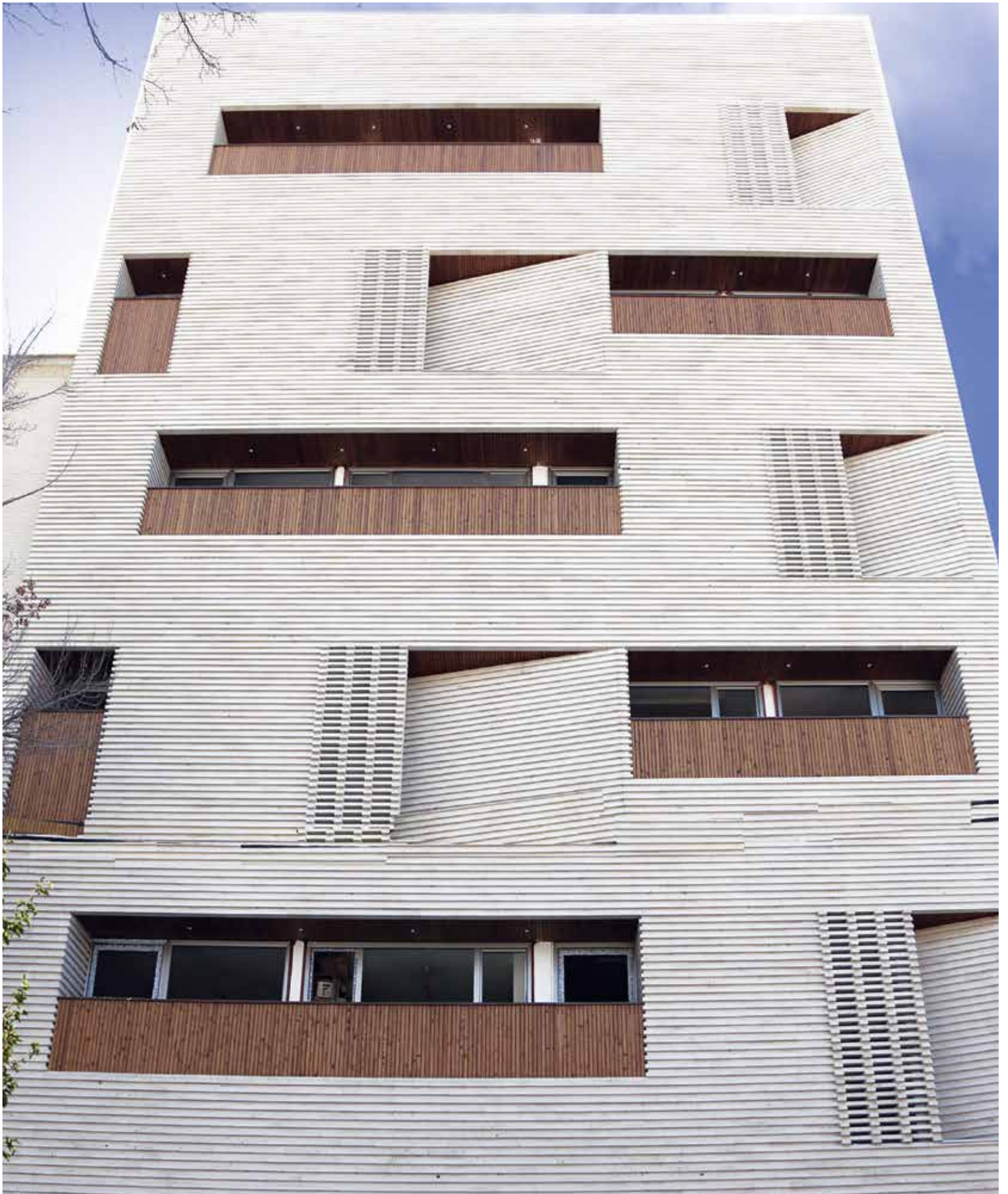


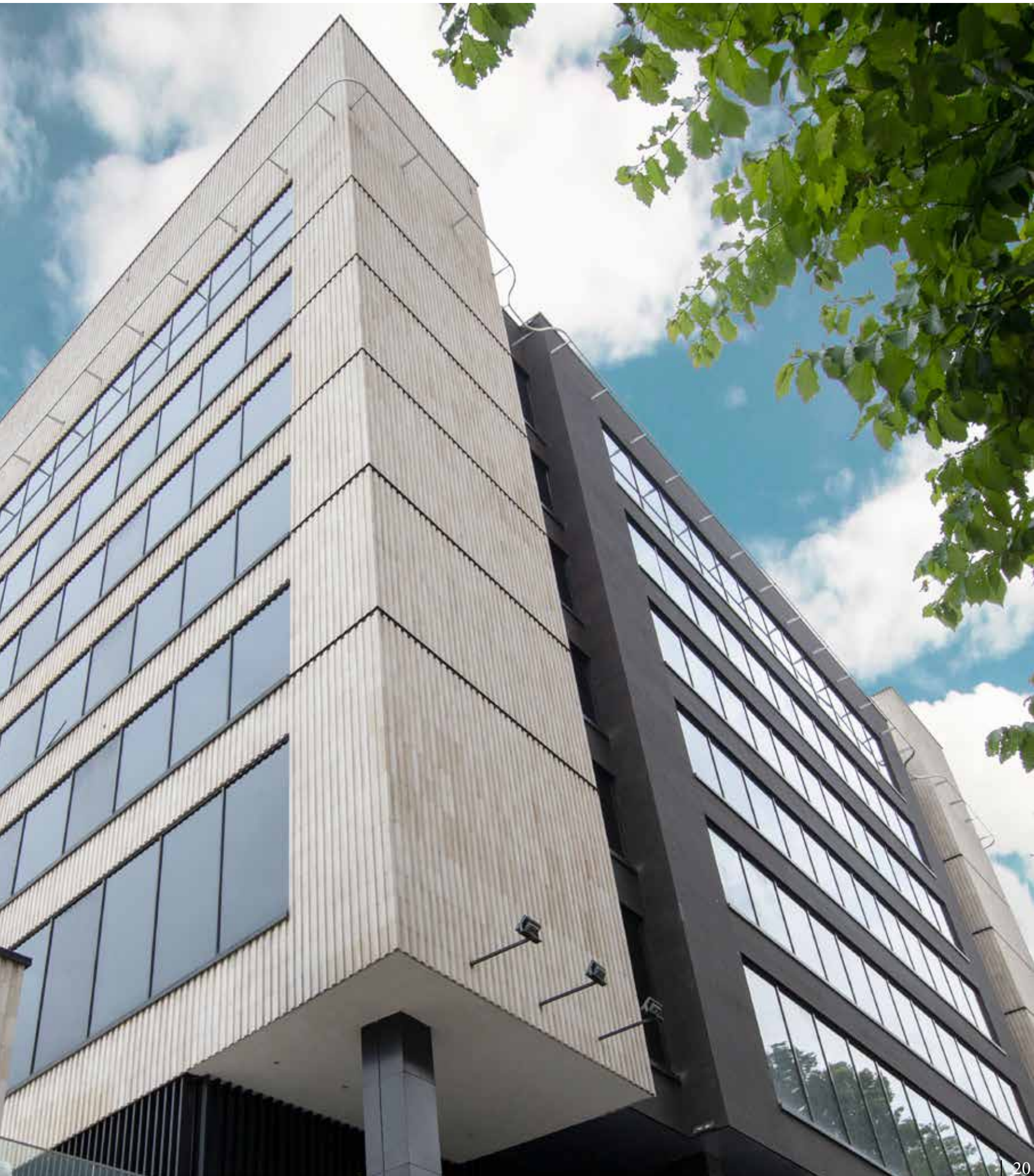


# White color Renge

# White Brick

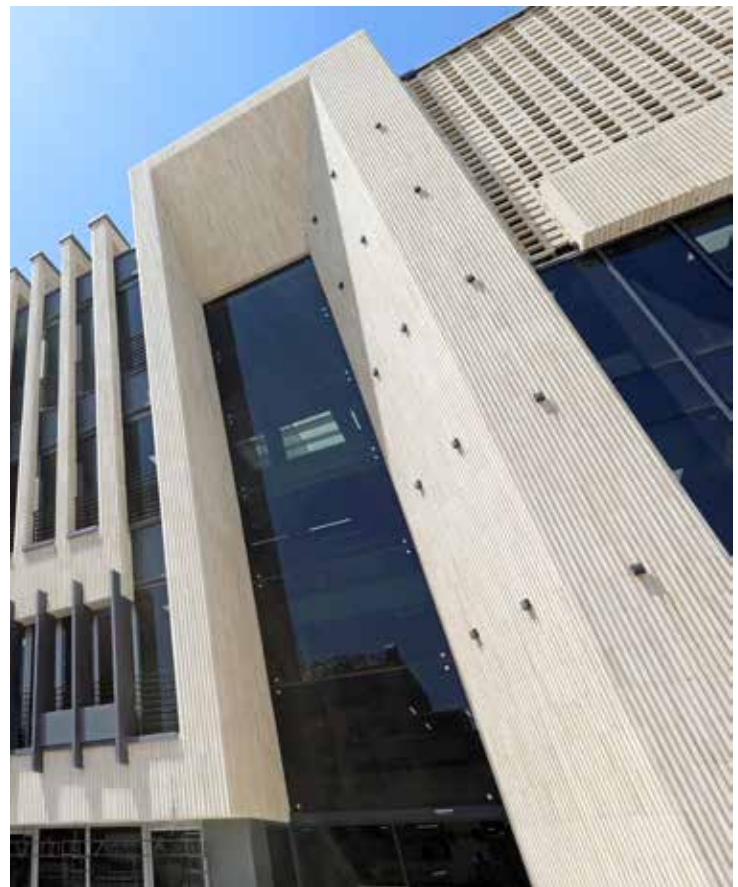
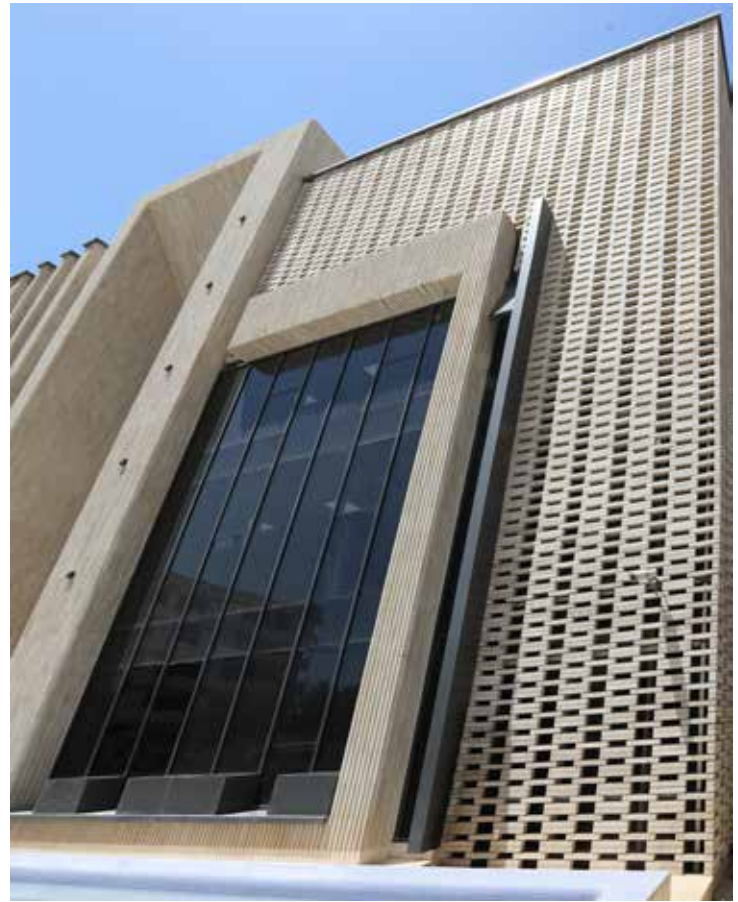






# White Granite Range





# POWERFUL AND FLEXIBLE



# BEAUTY AND PRESTIGE

## A HOUSE COMPLETELY MADE OF AZARAKHSH BRICKS ONLY OFFERS ADVANTAGES

Perhaps you know exactly what you want? Perhaps you're still on the lookout for more options and you're currently welcoming suggestions for the perfect house? One thing is sure: when you finish your house, you'll spend many hours inside it. We spend up to 90% of our time indoors. This is why it makes sense to integrate the indoor climate into the planning process when you intend to build a house. Brick is one of the most suitable materials for indoors, if you want to offer your family the best climate. There are many reasons for this - actually, so many that we could print a whole leaflet just about the advantages of a house completely made of bricks.

In a house completely made of bricks, the facade and the interior walls are also made of bricks. You'd also have heavier walls, in comparison to lighter alternatives, such as porous concrete, cement, gypsum or wood.





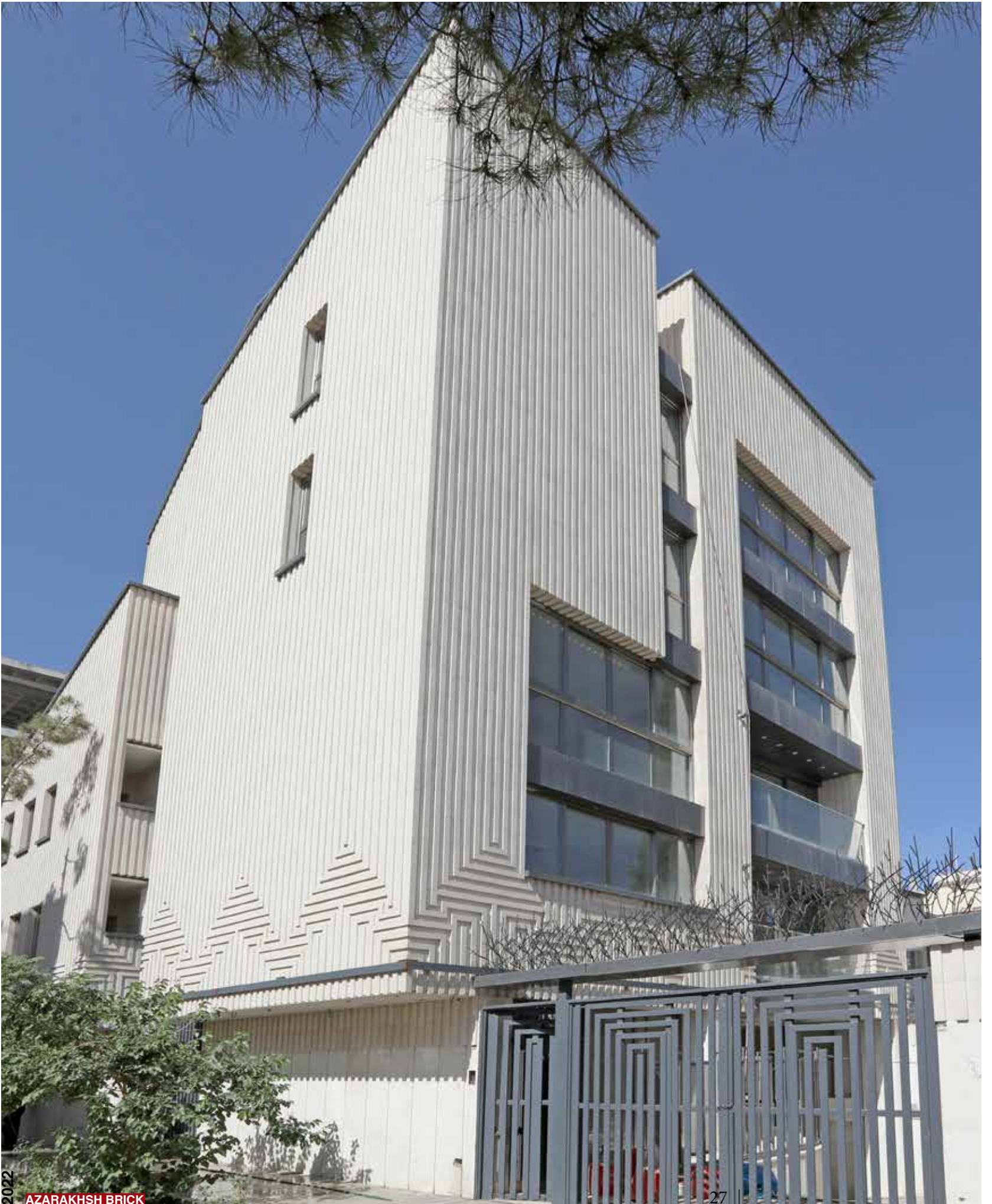




A facade constructed with Azarakhsh bricks creates delicateness and beauty of apparent display of building and its appropriate perspective for building. Azarakhsh Brick Veneer play the role of a heat and cold-proof medium which prevent loss of energy produced by heating and cooling systems. They also remove or reflect heat in summer based on their color, type and area. This action applies for winter as they attract sunlight and consequently heat of the sun.



Classic material  
meets modern  
design

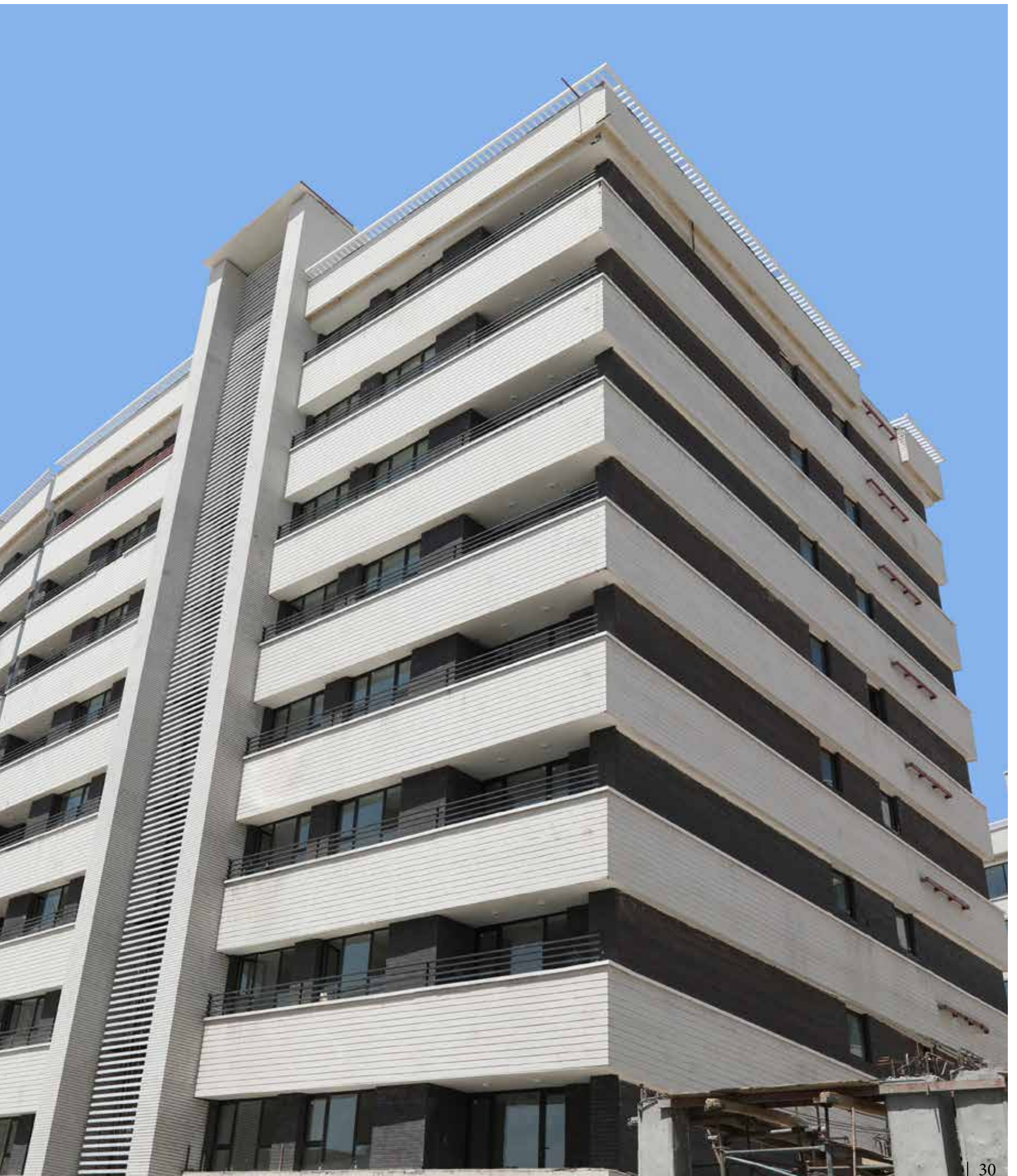






## The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East

The other properties of our Bricks, diversity of colors may be exemplified. These colors originate from natural color elements in mineral compounds. In addition, high temperature baking manifests the vast colors after production of firebrick. These Bricks will then be constant from the view point of color against sunlight. All Bricks are composed of naturally-occurring materials and they all have organic compounds. Presence of these compounds in Bricks result in efflorescence and reduces the beauty of facade. This phenomenon is more tangible in clayey Bricks. The organic compounds of the produced brick are totally ruined in temperature of above 1100 °c. As a result, when these compounds are ruined, no efflorescence occurs. For this reason, results of efflorescence tests are very slight due to above mentioned issue. To be honest the efflorescence is red line for Azarakhsh products.

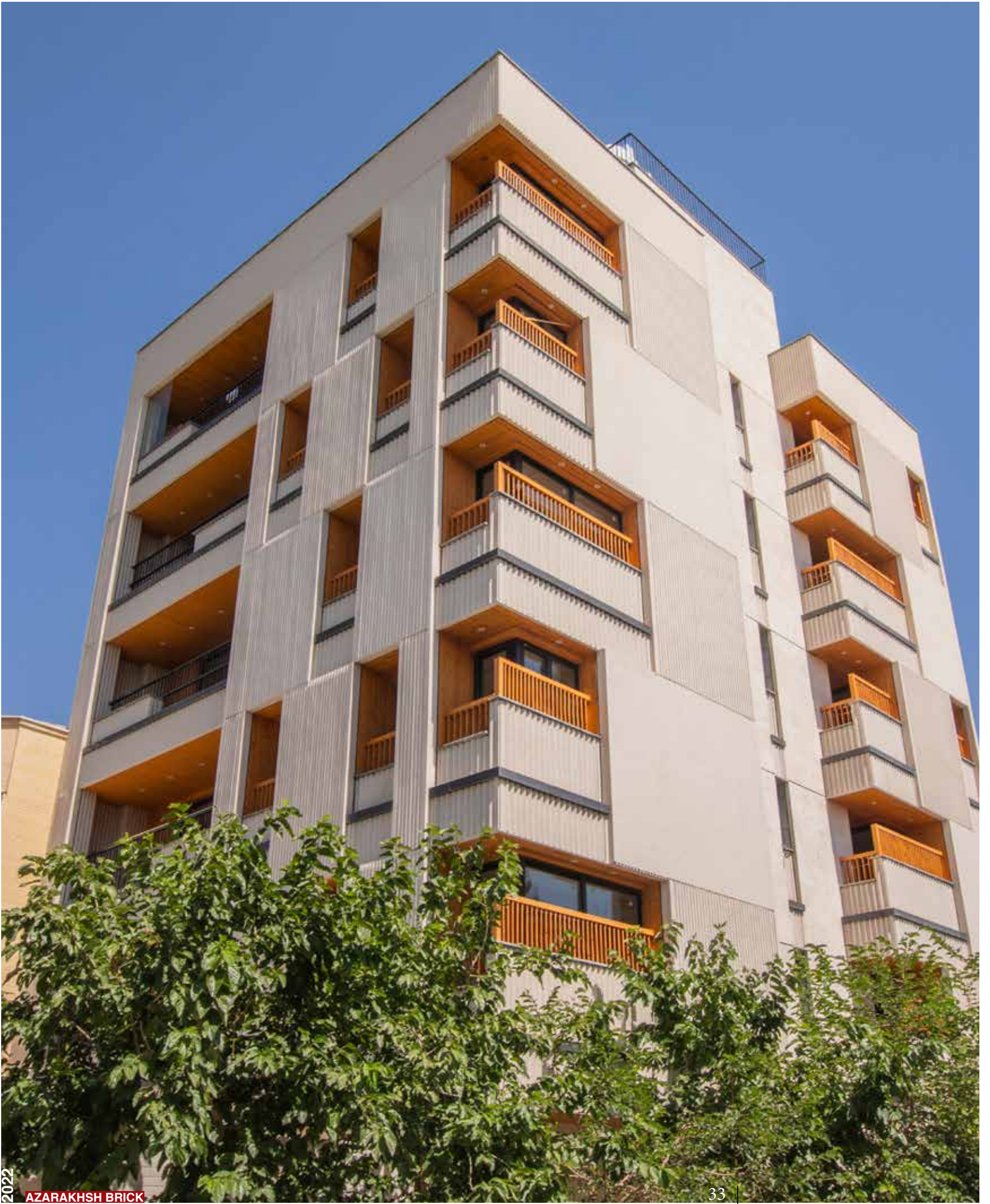


# A PRODUCT WITH MULTIPLE SOLUTIONS





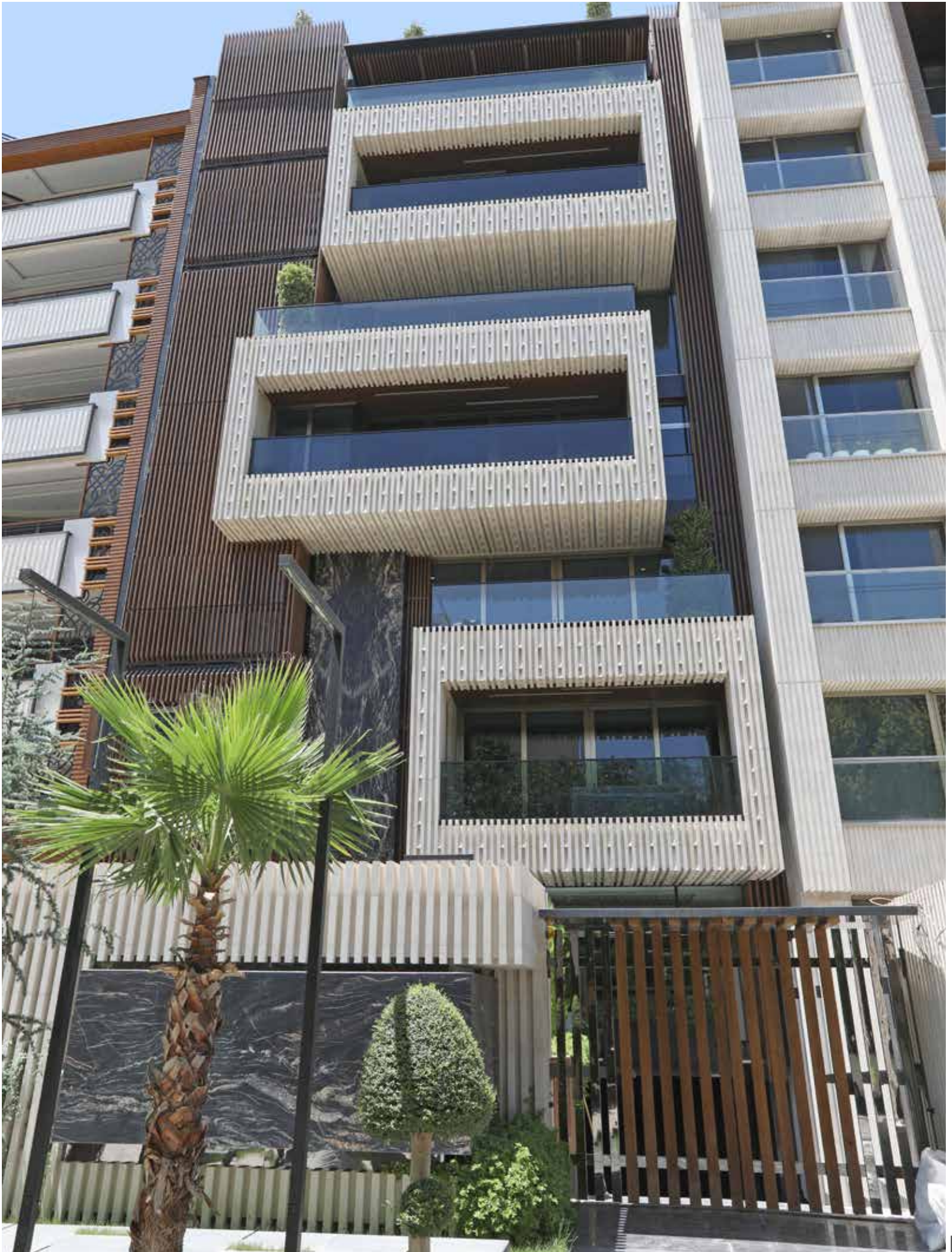


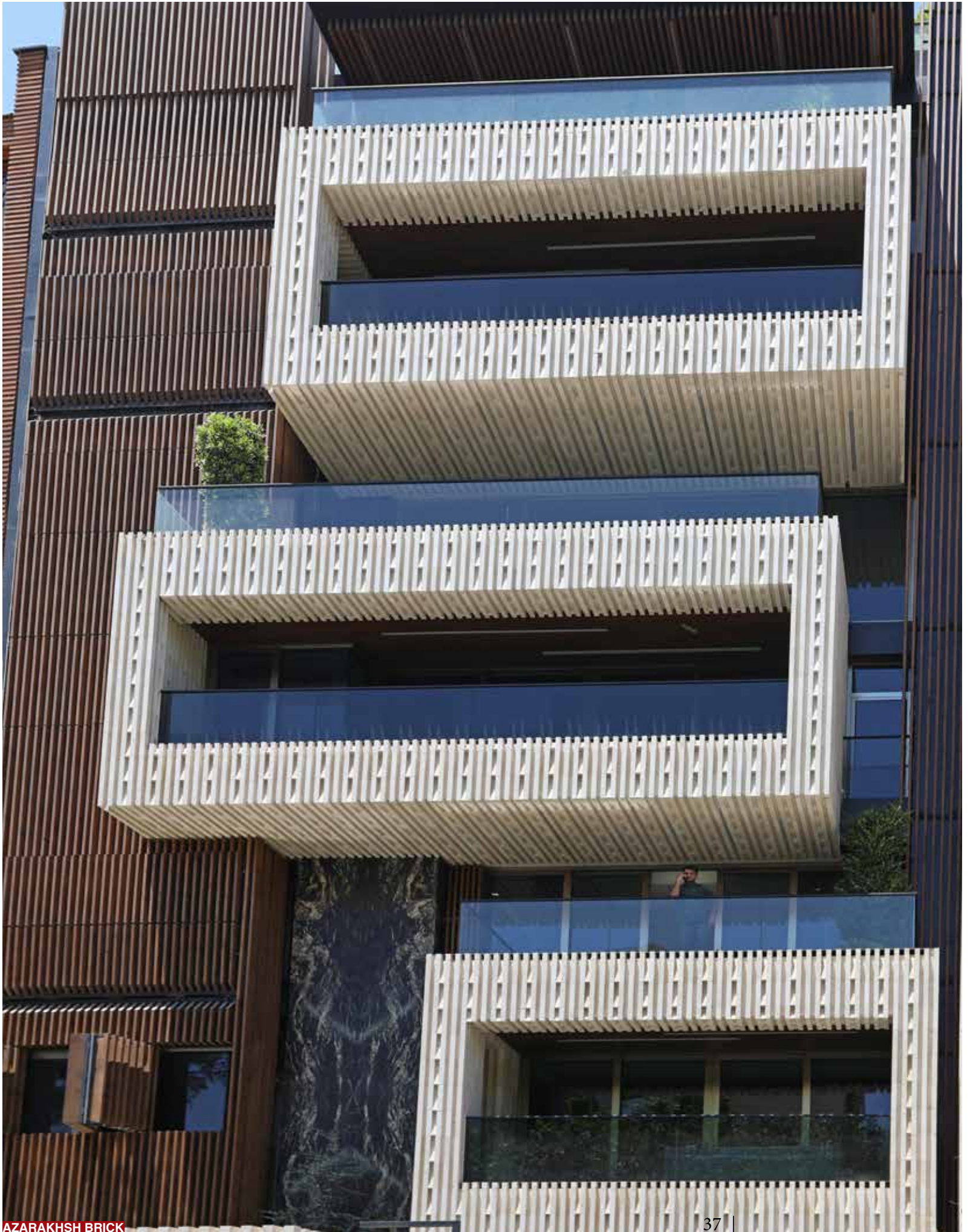




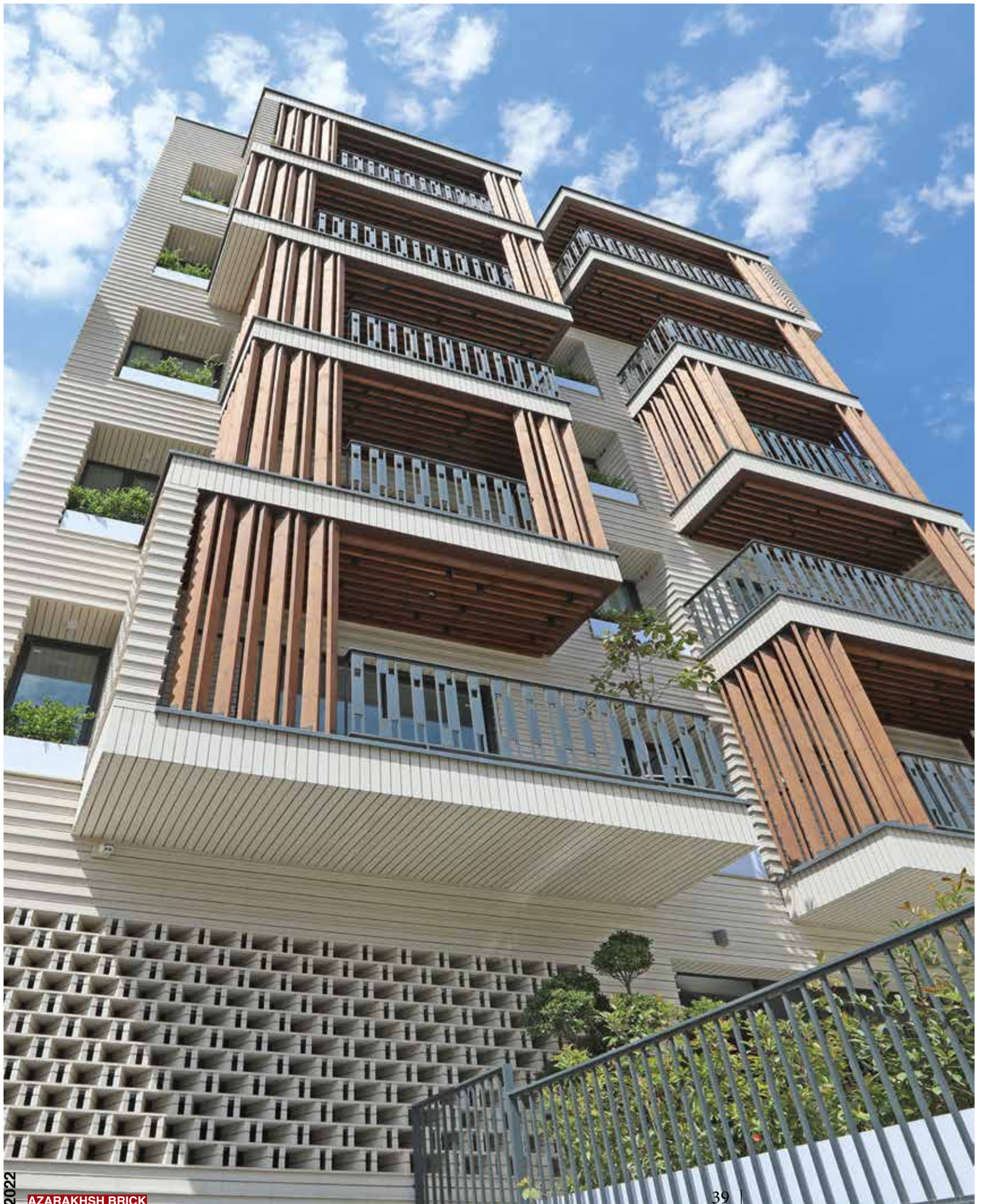
Our brick slips are manufactured from only the best quality full facing bricks, essentially we remove the face of the brick to enable our customers to have the natural beauty of a real kiln fired clay brick without the drawbacks and constraints of using full bricks. This opens up a vast range of possibilities for any project.













All **Bricks** are composed of naturally- occurring materials and they all have organic compounds. Presence of these compounds in **Bricks** result in efflorescence and reduces the beauty of façade. This phenomenon is more tangible in clayey **Bricks**. The organic compounds of the produced **Brick** are totally ruined in temperature of above 1100 C°. As a result, when these compounds are ruined, no efflorescence occurs. For this reason, results of efflorescence tests are very slight due to above mentioned issue.





AB51401



Dimensions ▶ 400 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 35 pcs.



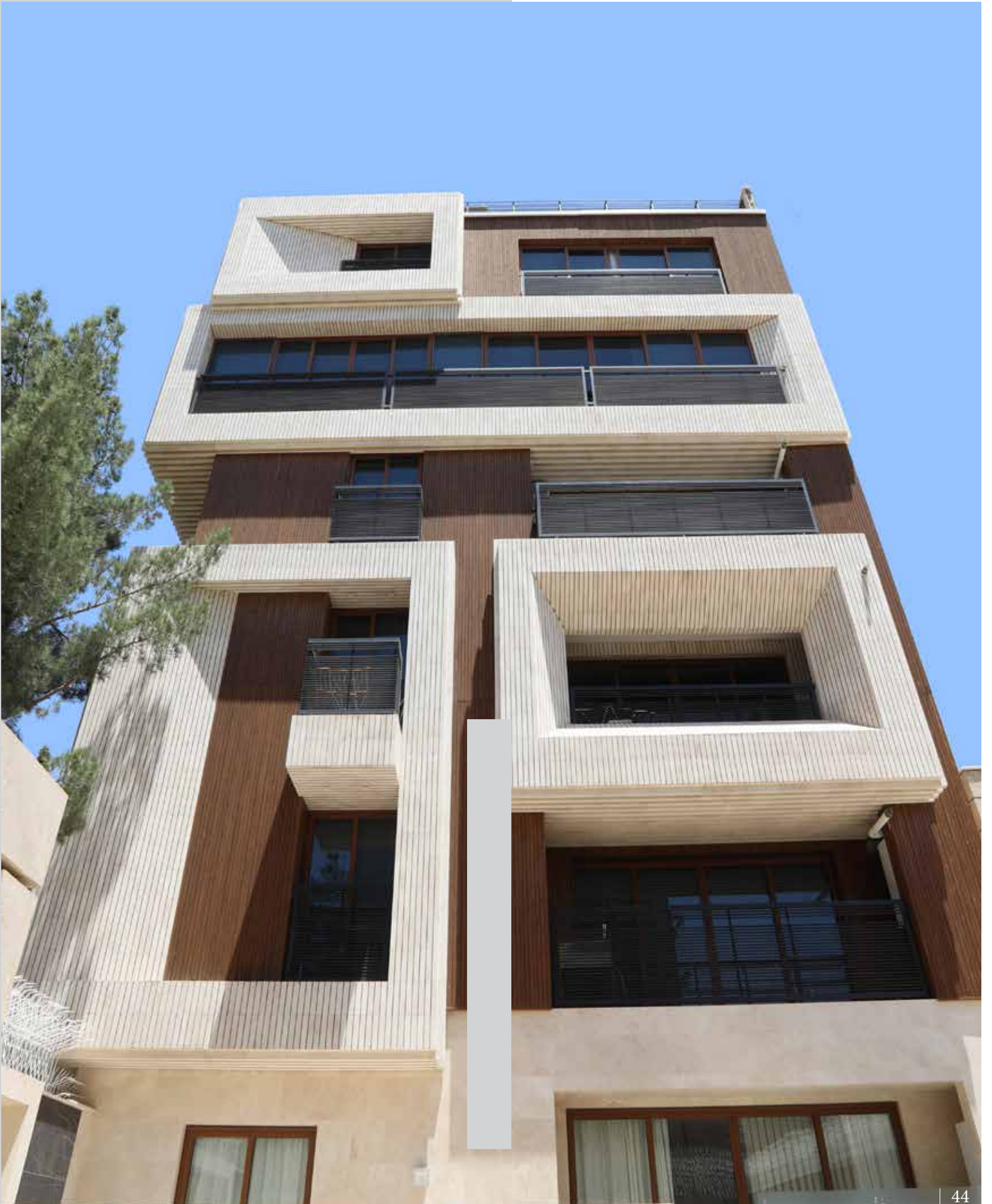
**OUR REAL FIREBRICK SLIPS ARE INDUSTRY INSPIRED.**

Our product range covers everything from contemporary, rustic, elegant to casual, modern, flooring etc.

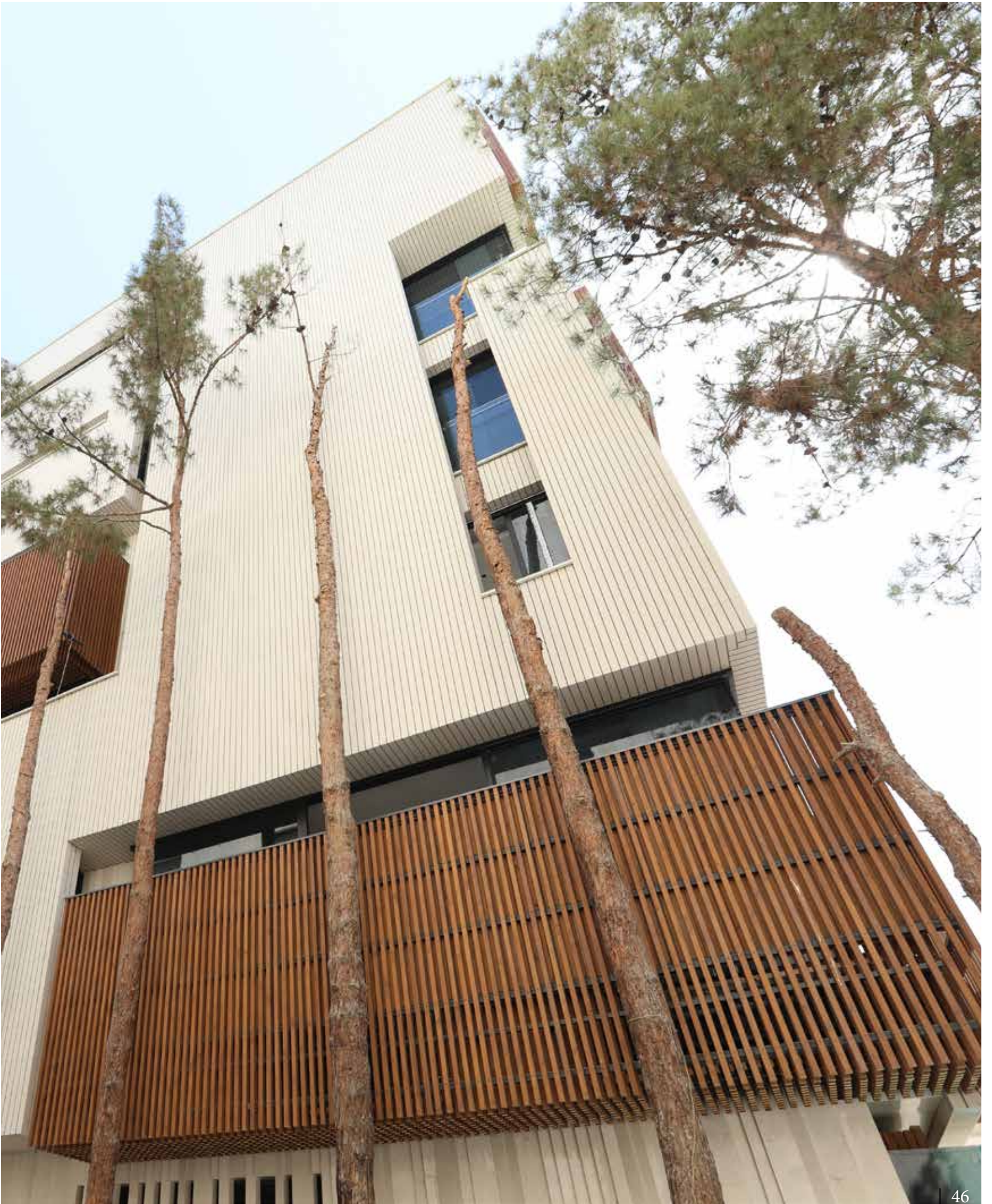
Here at brick we manufacture products that are supplied to some of the biggest companies in the world.

Our Machine Made brick slips offer some of the finest quality brick slip cladding we have available, and they are particularly recommended if you are looking to create a feature wall or look that is both contemporary and unique, as we can provide slips in long, thin styles or even in particularly large sizes. If you are looking for a feature wall that stands out rather than blends in, this range.



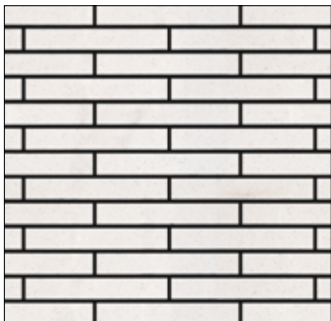








**AB51401**



Dimensions ▶  $400 \times 60 \times 20$  mm  
 Qty/M<sup>2</sup> ▶ 35 pcs.



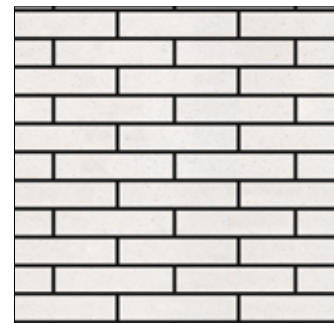




The secret of **Brick** ability for creating the most fantastic buildings of history is due to its proportionality. A **Brick** made building is a part of nature. This building not only disturbs its congruency with nature but also provides a scenic color and form. Therefore, it has been always preferred by people. Like a hand-made carpet, it is the endless elegances of architects. The other property which brings exclusivity for **Brick** is its different sizes (dimension). These sizes have been evolved during time and coordinated with the human's body structure and ability.



**AB51301**



Dimensions ▶ 330 × 70 × 20 mm  
 Qty/M<sup>2</sup> ▶ 37 pcs.

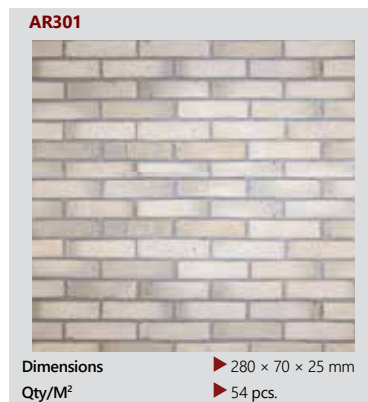
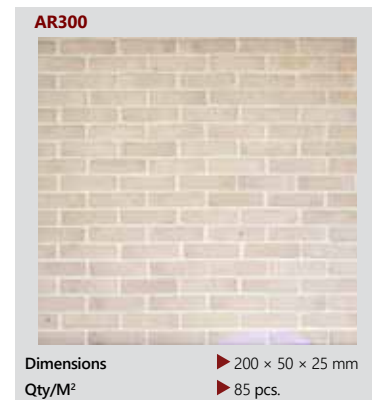
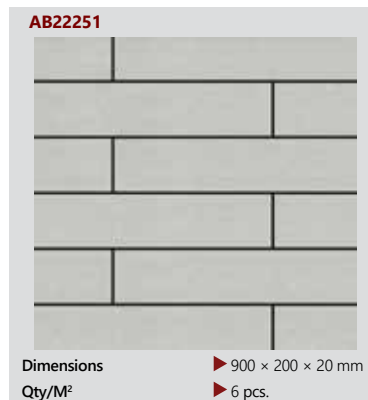
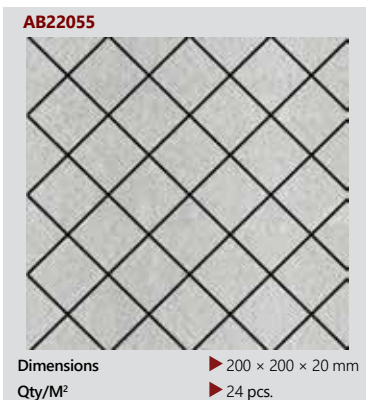
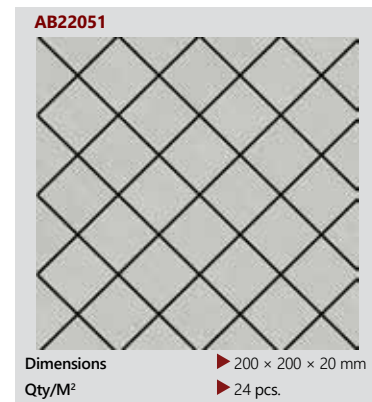
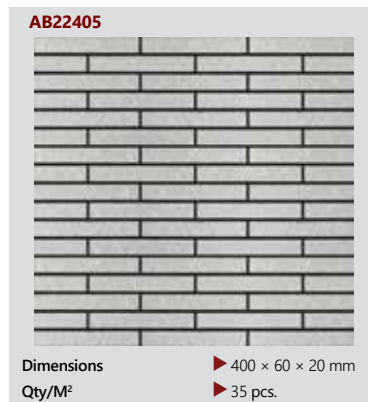
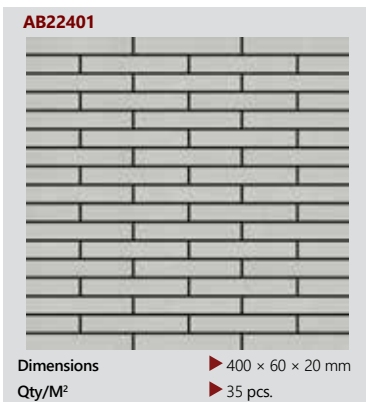
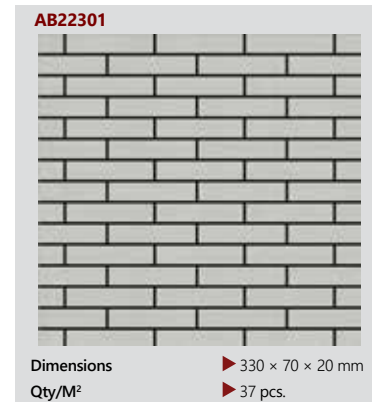
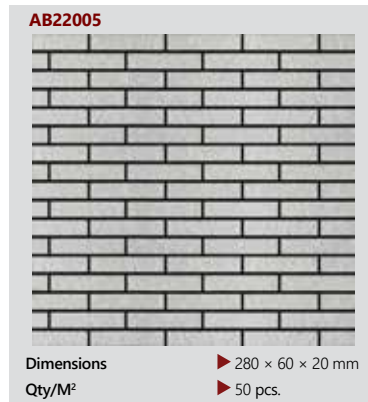
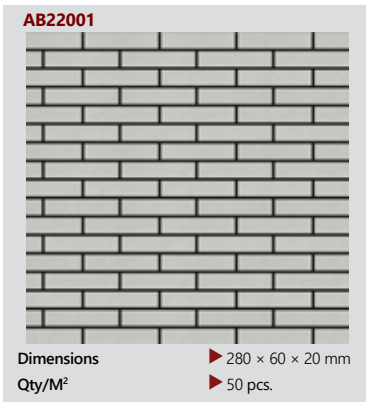


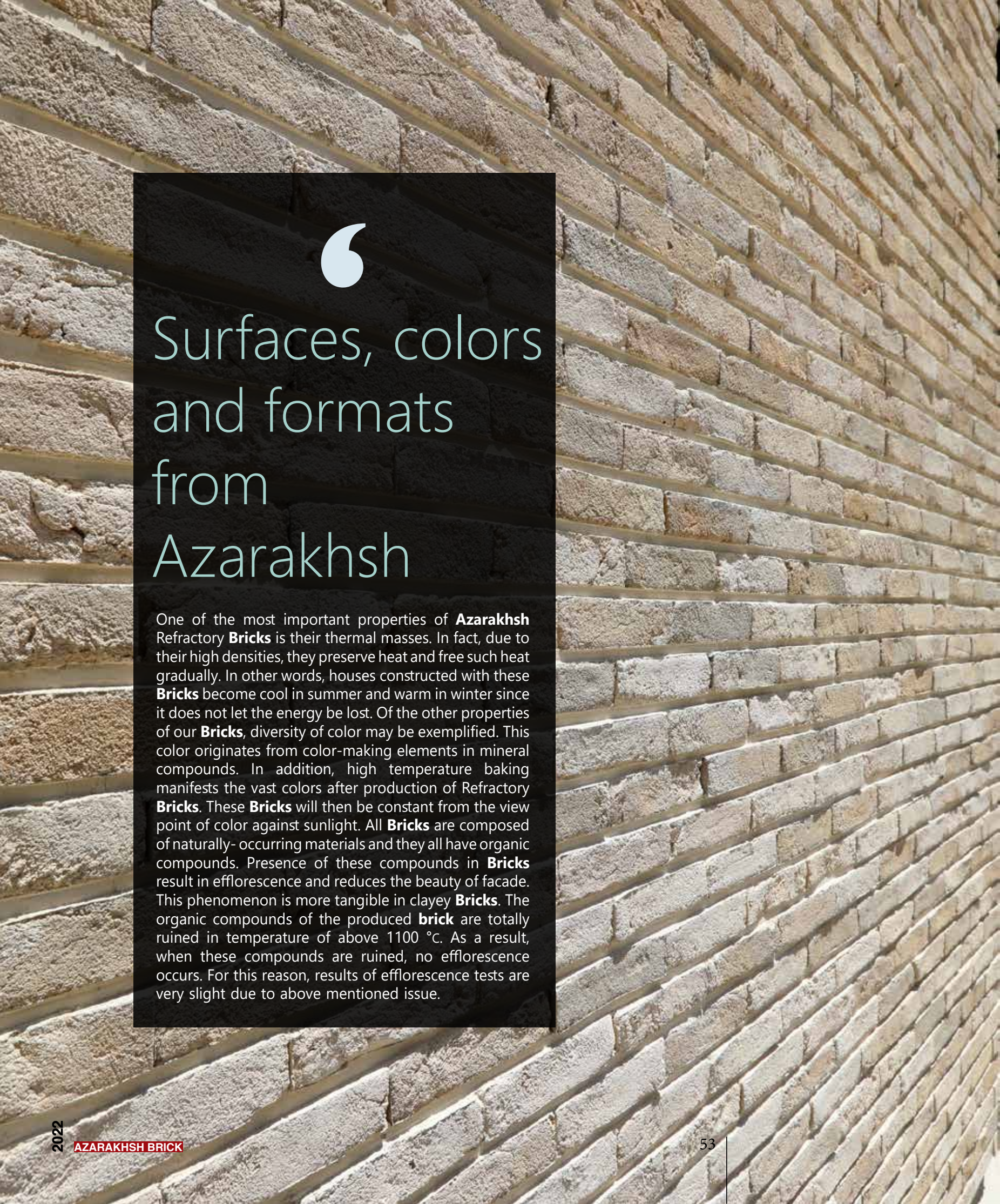
#### **Factory No.4: International Azarakhsh development of Refractory Industries co.**

- This factory with the use of the most advanced methods and modern technologies and equipment around the world and also cooperation with Sacmi Imola co, one of the best and most important companies producing ceramic and brick machineries, became one of the biggest factories and is known as pioneer in Refractory Brick industry in middle east. Fully-automatic grading system, modern robotic product line, modern quality control lab are the other possibilities of this factory of Azarakhsh Group. These possibilities help us to be successful in your satisfaction



# Light Gray Brick

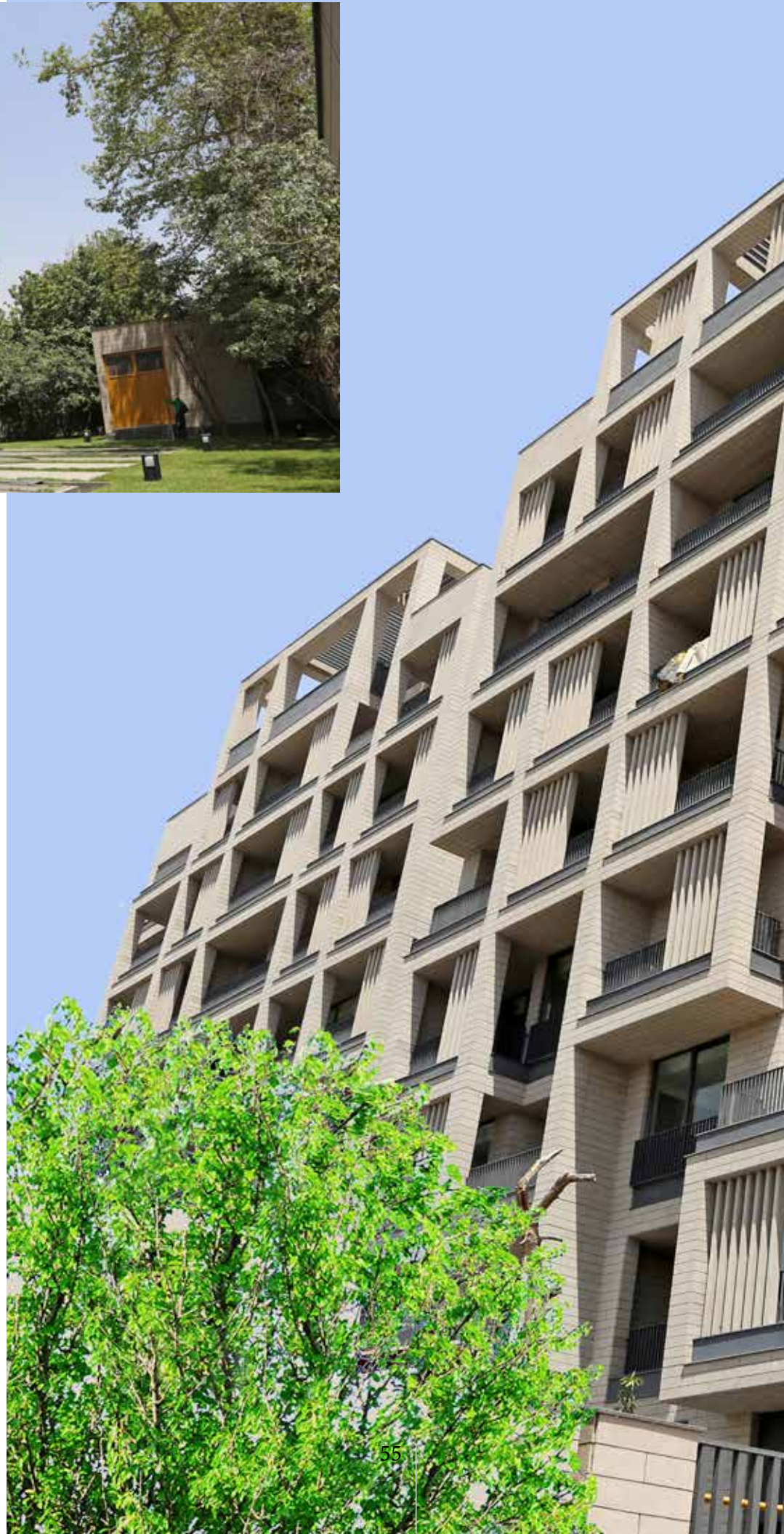




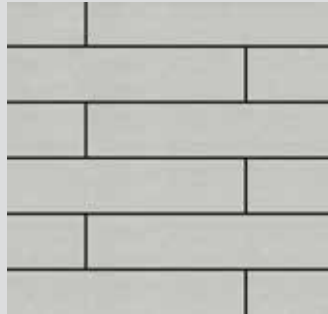
‘  
Surfaces, colors  
and formats  
from  
Azarakhsh

One of the most important properties of **Azarakhsh Refractory Bricks** is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these **Bricks** become cool in summer and warm in winter since it does not let the energy be lost. Of the other properties of our **Bricks**, diversity of color may be exemplified. This color originates from color-making elements in mineral compounds. In addition, high temperature baking manifests the vast colors after production of Refractory **Bricks**. These **Bricks** will then be constant from the view point of color against sunlight. All **Bricks** are composed of naturally- occurring materials and they all have organic compounds. Presence of these compounds in **Bricks** result in efflorescence and reduces the beauty of facade. This phenomenon is more tangible in clayey **Bricks**. The organic compounds of the produced **brick** are totally ruined in temperature of above 1100 °C. As a result, when these compounds are ruined, no efflorescence occurs. For this reason, results of efflorescence tests are very slight due to above mentioned issue.

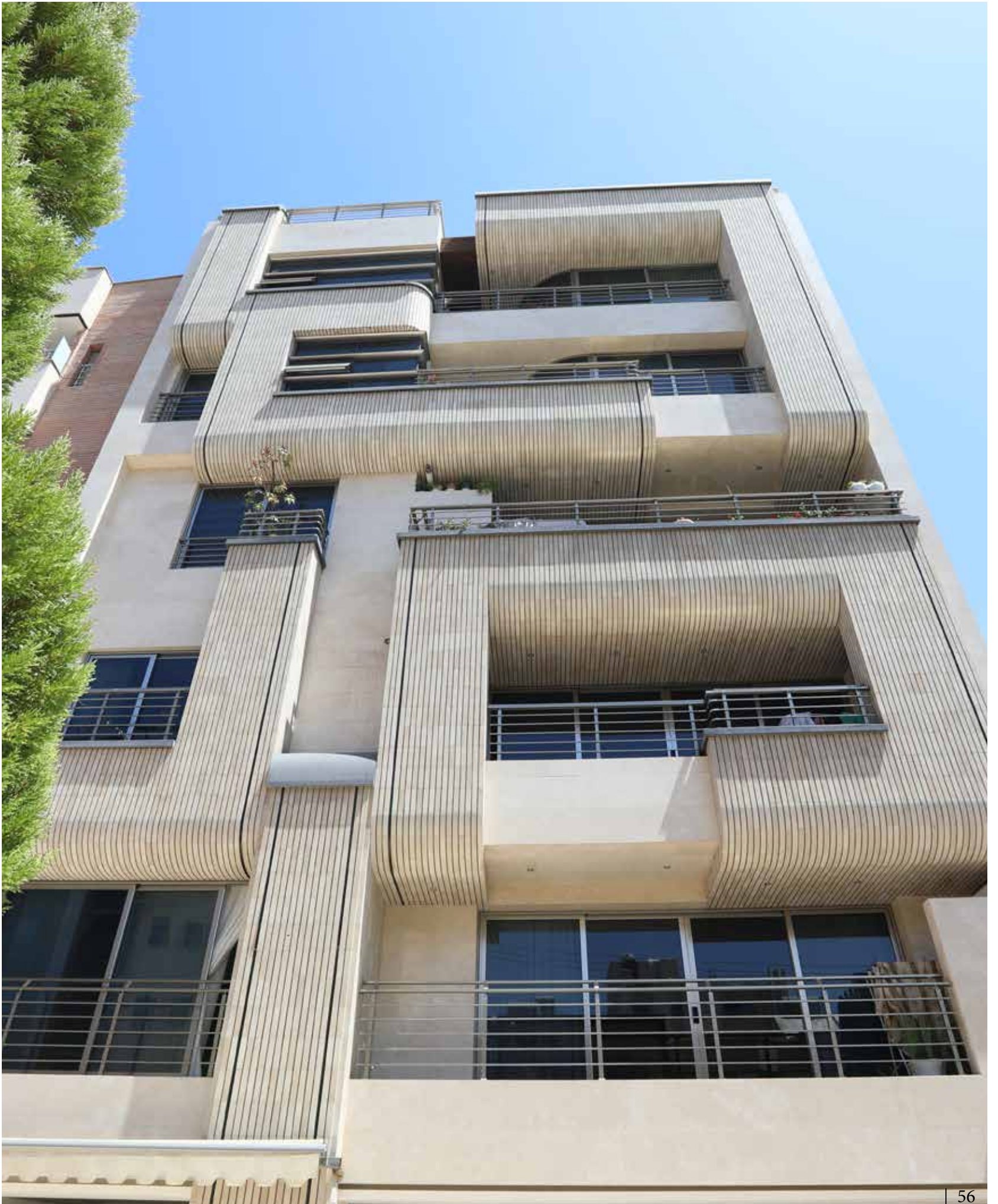




AB22251



Dimensions ▶ 900 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 6 pcs.





# WE ARE Here

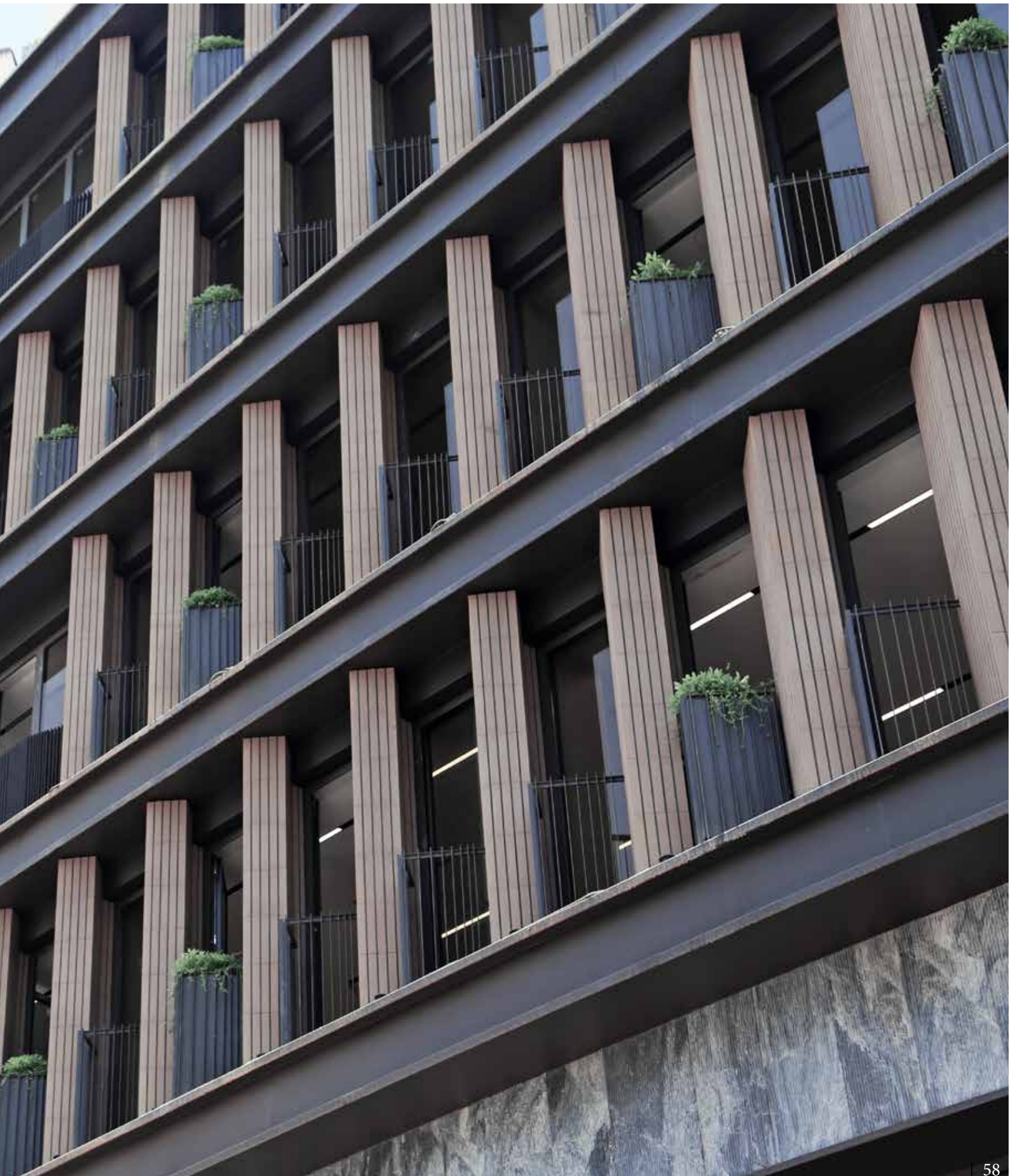


FACTORY NO 4

FACTORY NO 3

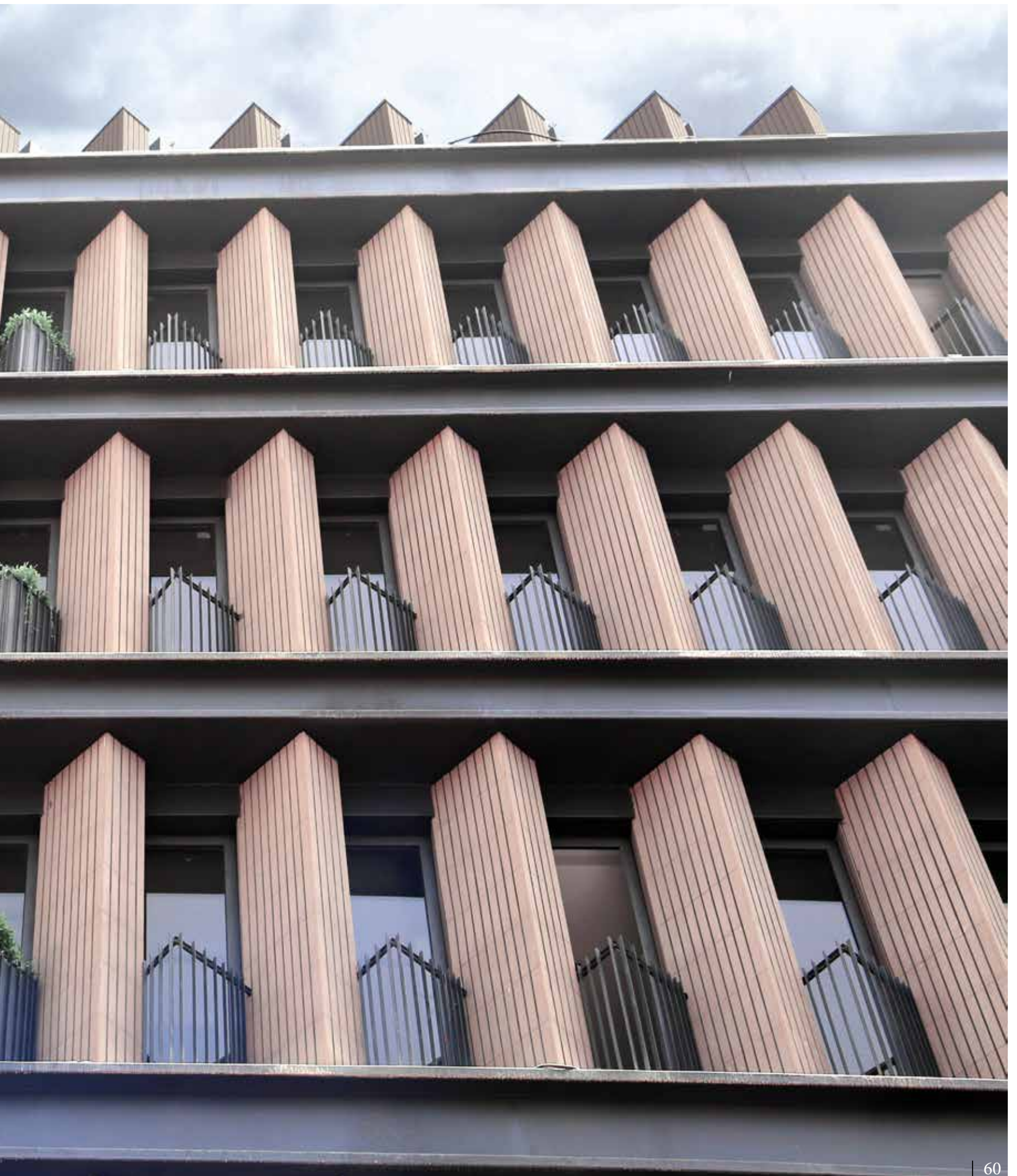
FACTORY NO 2

You've heard of us?  
We deserve your *trust!*



# A facade that looks both natural and robust









The secret of **Brick** ability for creating the most fantastic buildings of history is due to its proportionality. A **Brick**-made building is a part of nature. This building not only disturbs its congruency with nature but also provides a scenic color and form. Therefore, it has been always preferred by people. Like a hand-made carpet, it is the endless elegances of architects. The other property which brings exclusivity for **Brick veneer** is its different sizes (dimension). These sizes have been evolved during time and coordinated with the human's body structure and ability. Its size makes it to be matched together easily. This property provides countless engineering properties in the location of two walls contact. **Bricks** are fixed to each other through mortar, adhesive and provide a uniform surface. Due to their proper sizes, these materials have been used to create arc and dome since the era of Sassanid dynasty in Iran.





## DESIGNED FOR FAMILY LIFE

After you've lived in a house completely made of bricks, you won't want to live anywhere else. The brick walls seem to have been created for dynamic family life, where people reorganize furniture, switch rooms and change direction as they go. The solid wall bears the stresses of everyday life and family activities. For this reason you can be glad that brick walls need no maintenance. Plastered walls are easy to clean, and at the same time shelves, cupboards and so on can be easily mounted directly onto the wall, without the help of additional devices and special tools. The load capacity of a screw is many times bigger than in the case of light building methods.













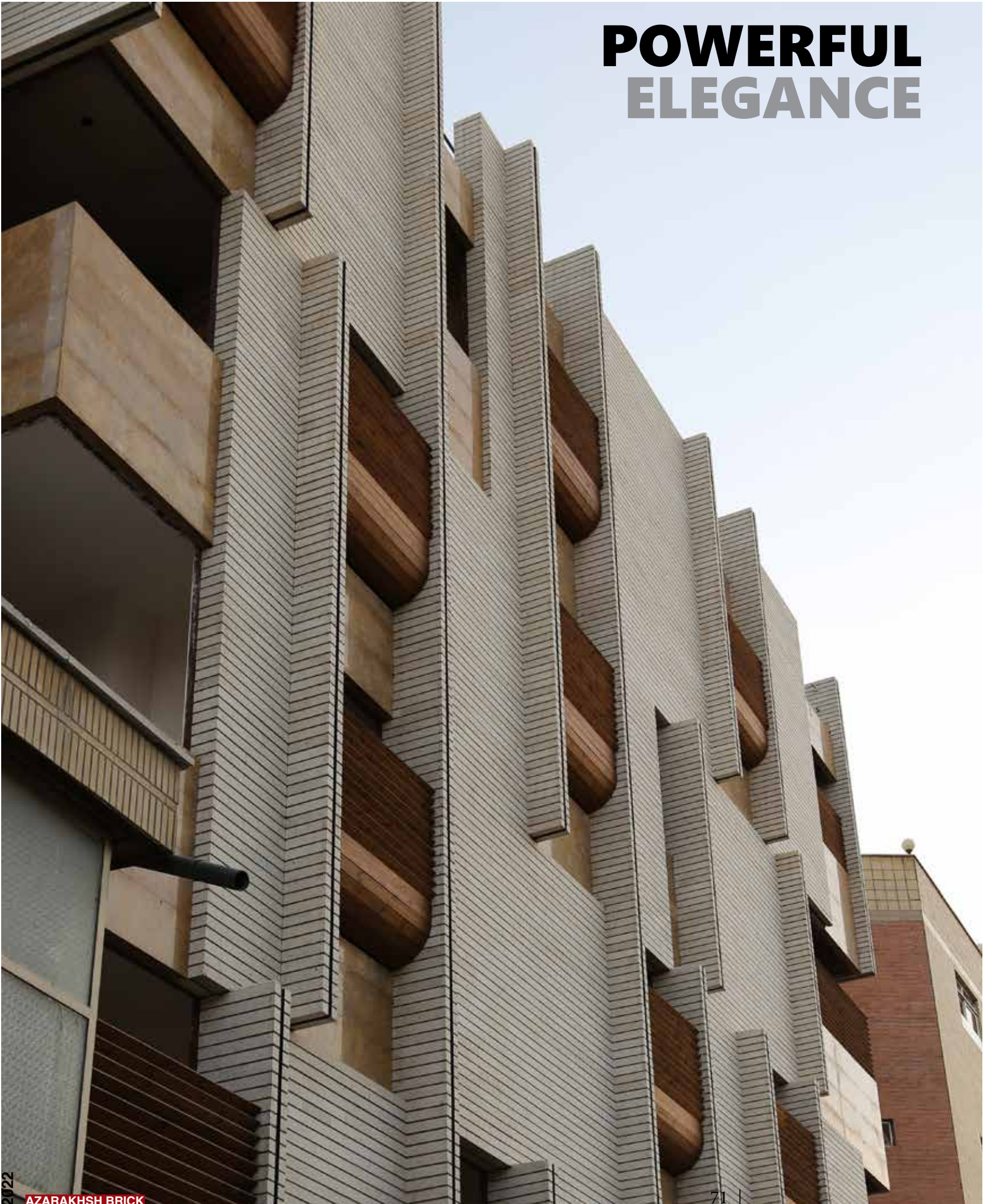


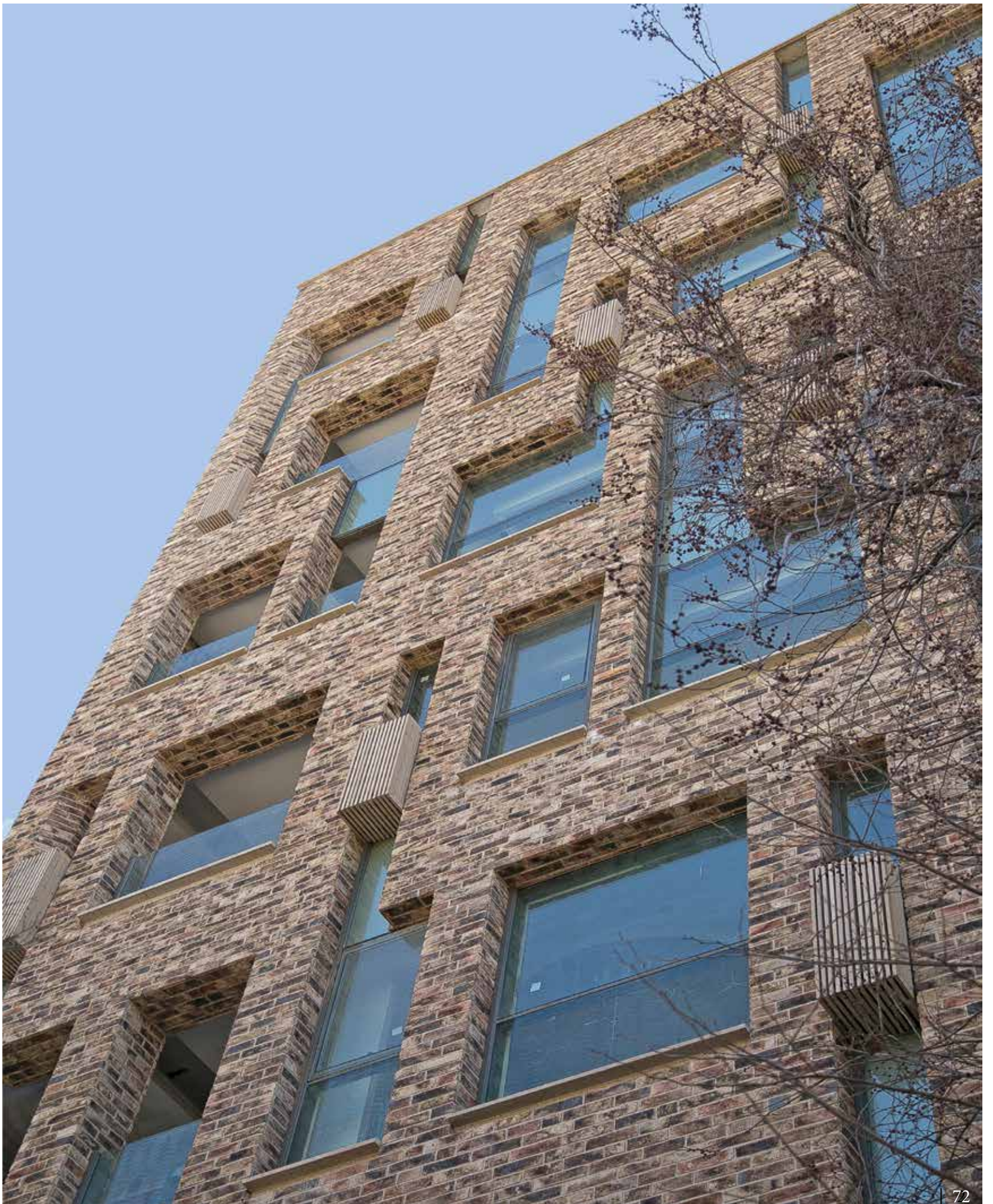
### What should i get?

But where to start? Consider, first of all, the type of brick face you're looking for Are you keen on authenticity? Are you more enticed by uniform design and a sleek, contemporary appearance? As we provide both genuine handmade brick slips or machine made brick slips and those which are created from scratch to your bespoke requirements, both options are always available to you. You should also closely consider the size of the bricks you are aiming to install Contemporary walls may opt for longer, thinner slips in a range of colours While others may be of standard size and of the traditional urban colouring that we see so regularly. It's important to consider your existing building What blends in with your surroundings? What textures, shapes, colours and patterns benefit your existing property best And appeal to you at the same time?



# POWERFUL ELEGANCE





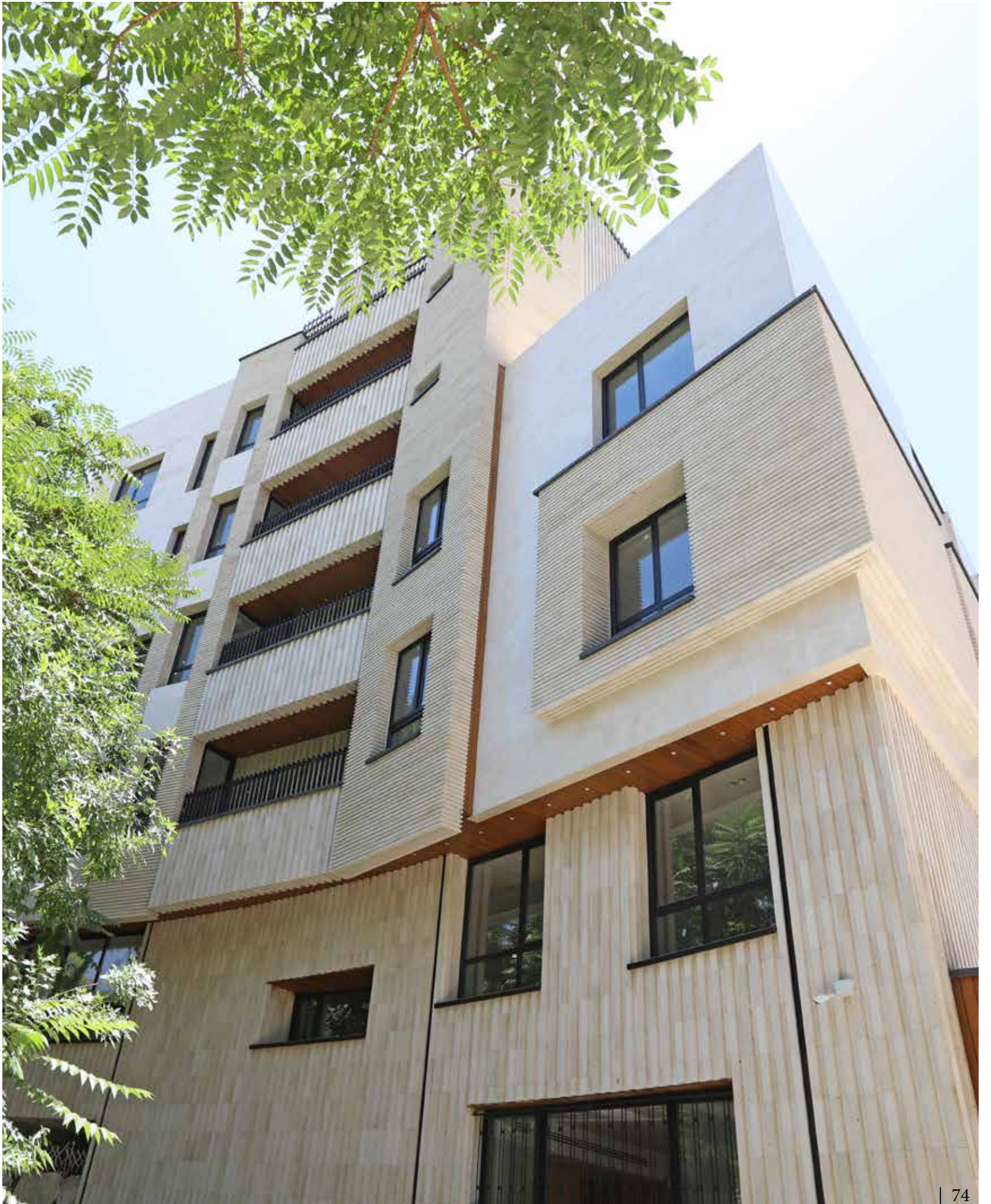




### **LIMITLESS POSSIBILITIES**

We have 23 years of experience as the middle east's leading supplier of brick slips, with this comes a wealth of knowledge and technical experience that allows us to offer our customers a lots of different cladding options for almost any situation, we can offer a full range of specially cut slips for any wall configuration, alongside this we can achieve the almost impossible. we offer solutions including curved walls, inverted walls and weight restrictive walls.

We can match the colour and texture of any existing brick type.

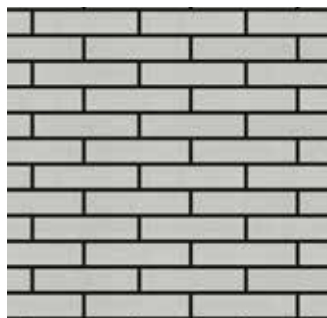




When you build a house for the first time, you need to tackle a whole new set of problems. One thing is sure: When you finish your house, you'll spend many hours inside it. Building a house exclusively of bricks can be costly, but it's a sensible investment that pays off. Interior walls made of bricks help adjust the building's temperature, as they store heat and cool air. In winter, the walls offer warmth, while on a hot summer day they have a cooling effect. This creates a pleasant indoor climate, which means healthy houses.



**AB22001**



Dimensions ▶ 280 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 50 pcs.





By the assistance of God, collaboration of active staffs and experts and benefiting from its exclusive mines as well as using the most premium raw materials (existing in Iran), Azarakhsh Co. has established its unit (factory) No.: 1 with annual capacity of 15,000 tons of refractory bricks and products since 1997 in Shokooohieh Industrial Town with pre-determined goals to provide foreign currencies. It then established its second factory under the name of Azarakhsh Refractory products with state of the art machineries with annual capacity of 18000 tons of facade refractory bricks in Mahmood Abad Industrial Town. After vast international marketing, it erected its third factory under the name of Azarakhsh International Refractory Ceramics Co. with annual capacity of 60000 tons of facade and floor refractory bricks. At the moment, Azarakhsh International Group is one of the biggest producers of refractory products in Middle East (with high quality and competitiveness with foreign prototypes) for long-lasting facades of buildings. It is also the biggest producer of big-size planar refractory bricks in the state. Azarakhsh group has gained many international honors for Iran. For the purpose of ever-increasing export development and suppleness of foreign currencies and glancing the bright horizons of the state promotion and excellence, this group has established its fourth factory under the name of Azarakhsh International Co., Development of Refractory Products, with annual capacity of 360,000 tons. This factory, which is 60,000 Sq. m. in area, is located beside the third factory and produces different kinds of special and facade refractory bricks.





## Factory No.4: International Azarakhsh Qom Refractory Ceramics Co.

• This factory is equipped with modern and specialized equipment of grinding, grading, cubits, jaw and blade mills systems, rotating furnace, fully-automatic machineries in all raw materials preparation steps and also modern material conveyance machineries etc. this factory with use of fourteen fully-automatic hydraulic pressing machines manufactured by Sacmi Imola co(Italy) is successful to achieve groups' goals.



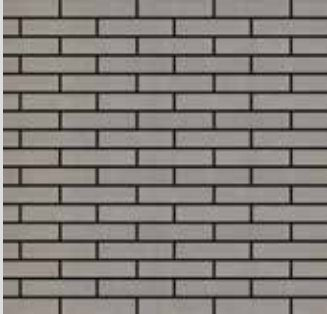
166

PARSIAN



# Gray Brick

**AB27001**



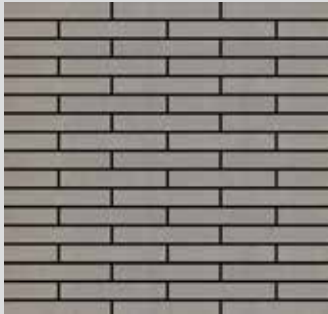
Dimensions ▶ 280 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 50 pcs.

**AB27005**



Dimensions ▶ 280 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 50 pcs.

**AB27401**



Dimensions ▶ 400 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 35 pcs.

**AB27301**




Dimensions ▶ 330 × 70 × 20 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

**AB27302**




Dimensions ▶ 330 × 70 × 20 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

**AB27405**




Dimensions ▶ 400 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 35 pcs.

**AB27251**




Dimensions ▶ 900 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 6 pcs.

**AB27051**



Dimensions ▶ 200 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 24 pcs.

**AB27055**



Dimensions ▶ 200 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 24 pcs.



A Brick-made building is a part of nature. Harmony not only disturbs it but also grants its scenic color and form. This type of building is always preferred and advances though passage of tim





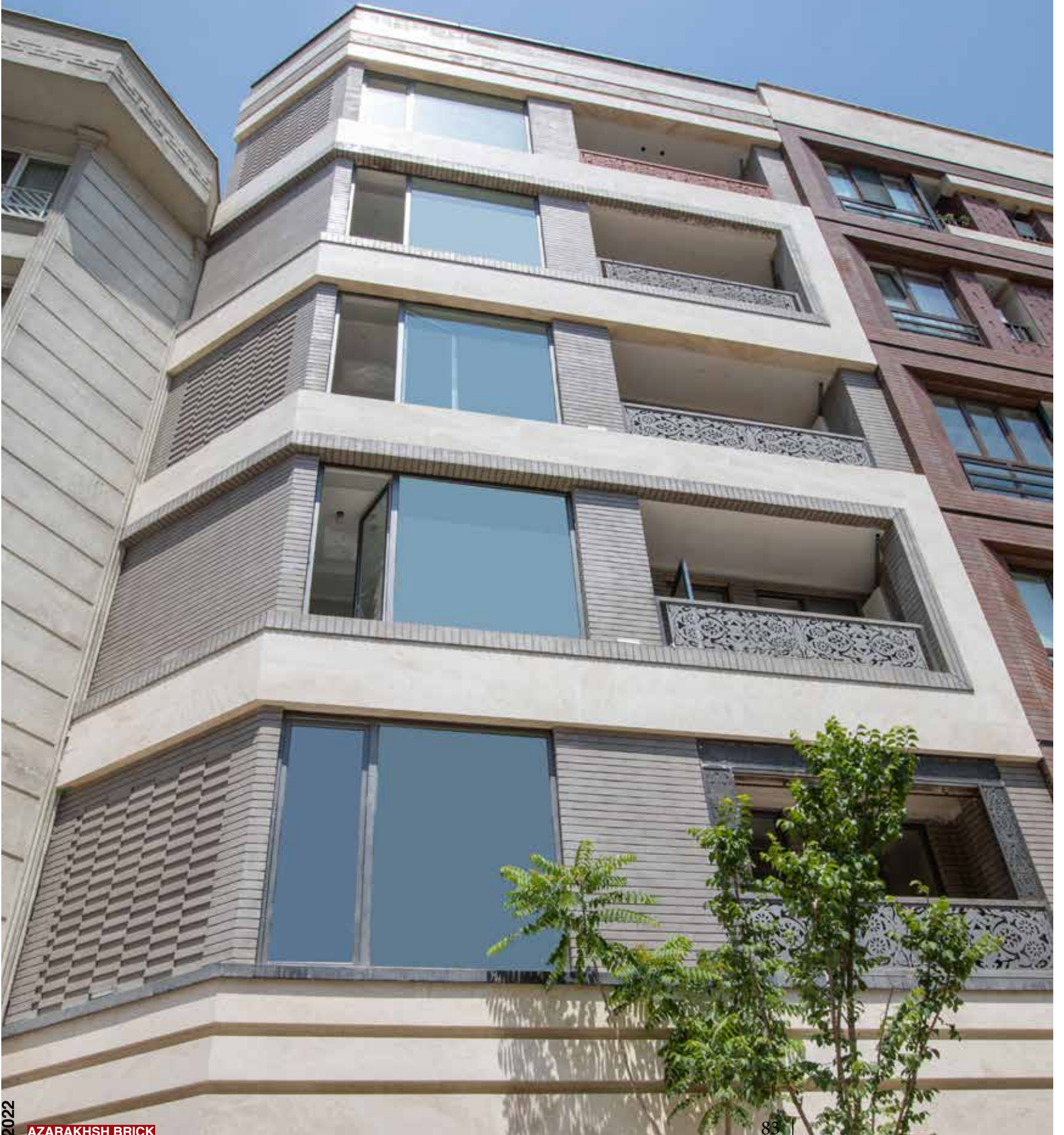


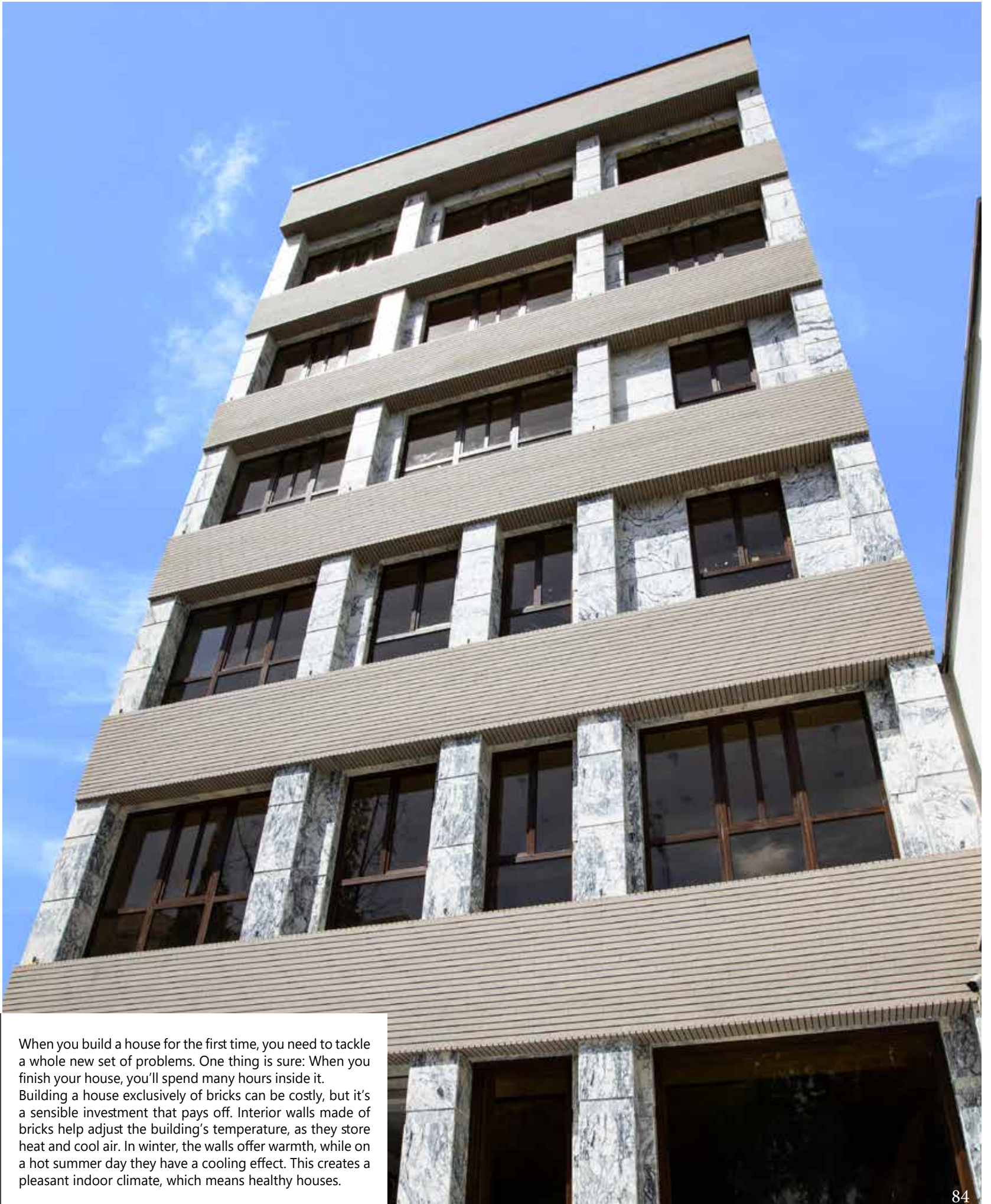
## The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East

Exclusive Properties of Azarakhsh Bricks One of the most important properties is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these Bricks become cool in summer and warm in winter since it does not let the energy be lost.



A Brick-made building like a hand-made carpet is a combination of endless elegances of artist architects.





When you build a house for the first time, you need to tackle a whole new set of problems. One thing is sure: When you finish your house, you'll spend many hours inside it. Building a house exclusively of bricks can be costly, but it's a sensible investment that pays off. Interior walls made of bricks help adjust the building's temperature, as they store heat and cool air. In winter, the walls offer warmth, while on a hot summer day they have a cooling effect. This creates a pleasant indoor climate, which means healthy houses.

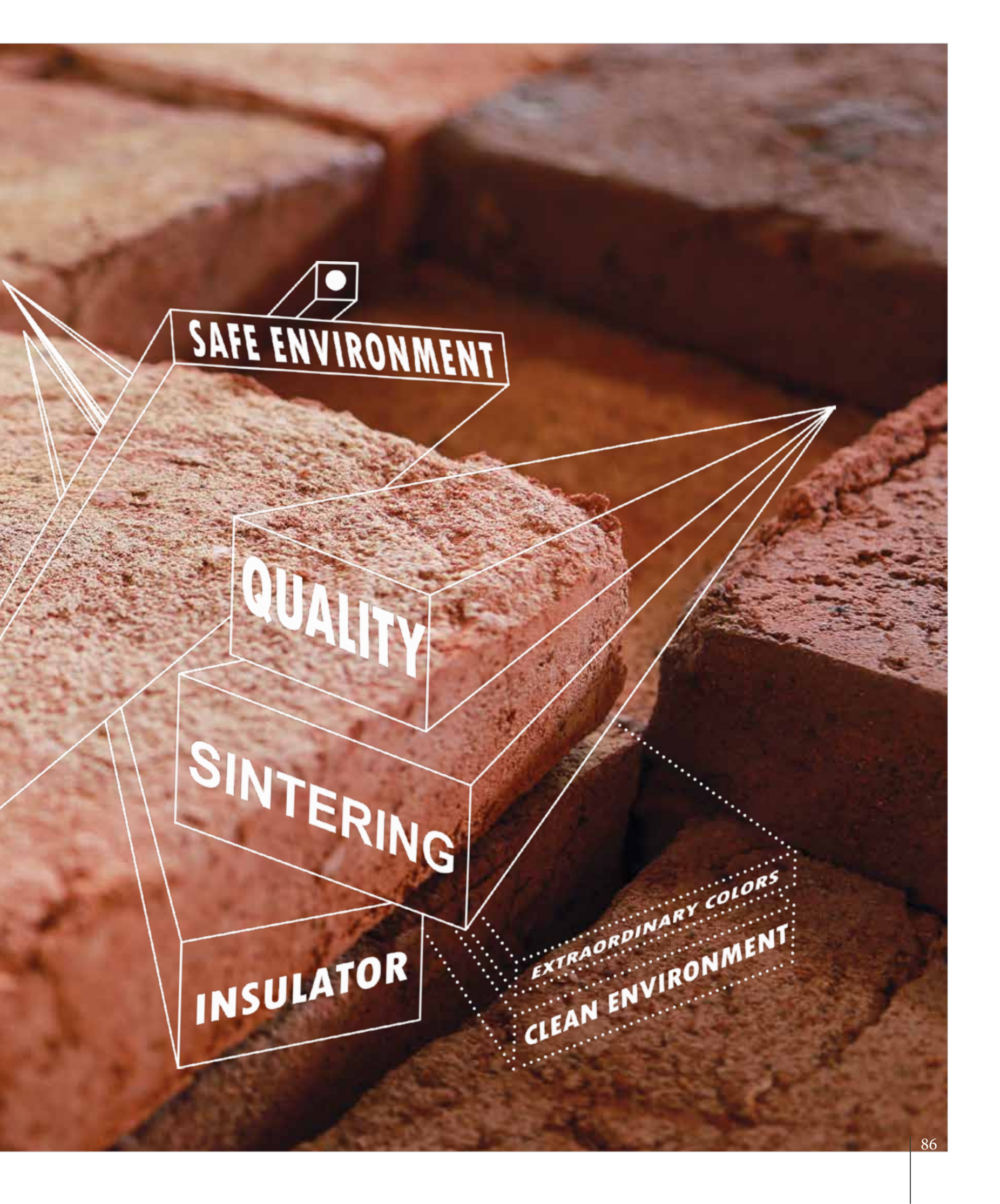


**Azarakhsh** brick facade gives beauty and delight to the appearance and ultimately is a suitable view for our building. **Azarakhsh** facade firebrick plays the role of heat and cold resistance that prevents waste of energy produced by heat and cold systems. Depending on the material color, and exposure surface it reflex the sun heat on summers and vice versa in winter.



A facade constructed with **Azarakhsh** bricks creates delicateness and beauty of apparent display of building and its appropriate perspective for building.





**SAFE ENVIRONMENT**

**QUALITY**

**SINTERING**

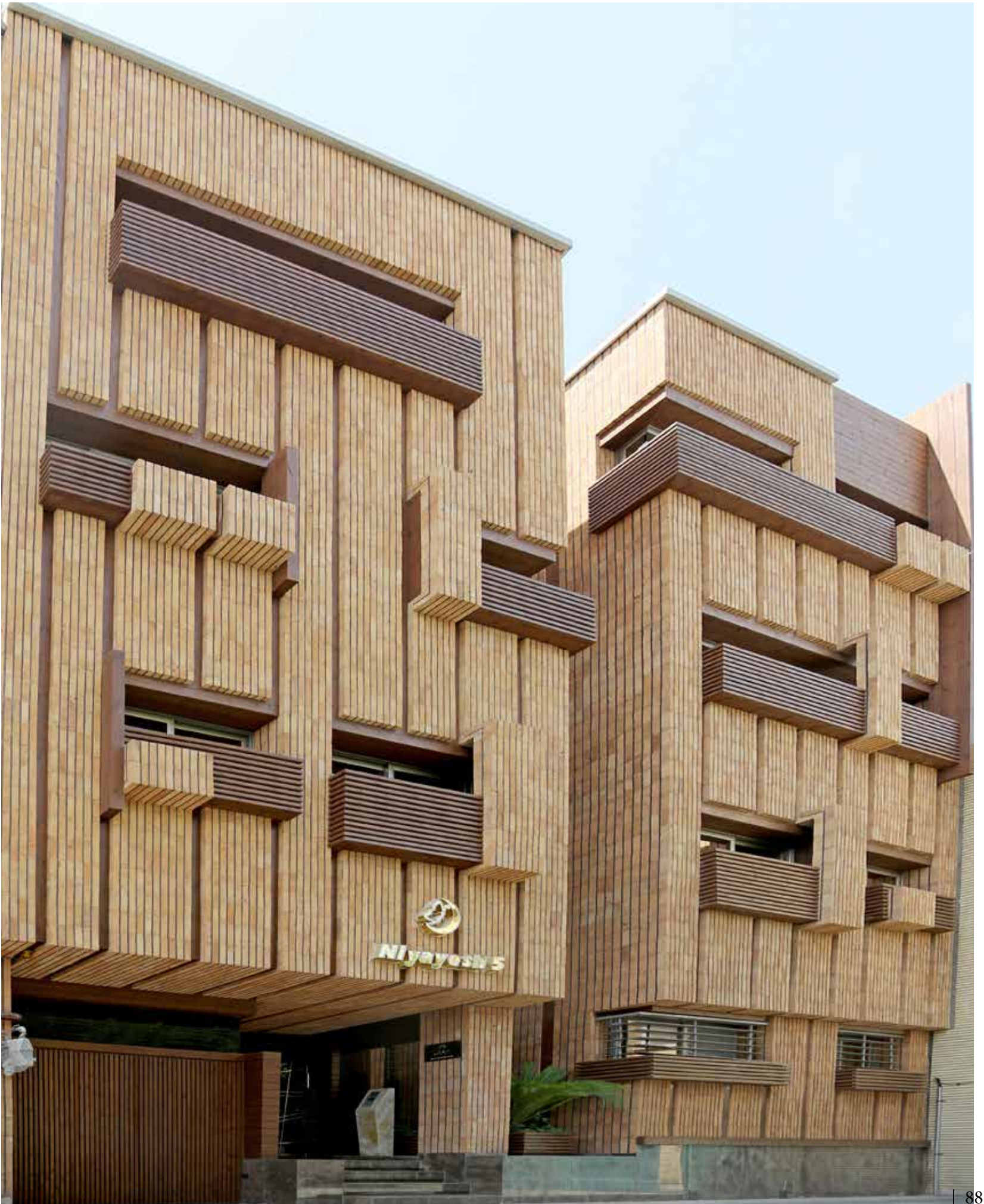
**INSULATOR**

**EXTRAORDINARY COLORS**

**CLEAN ENVIRONMENT**

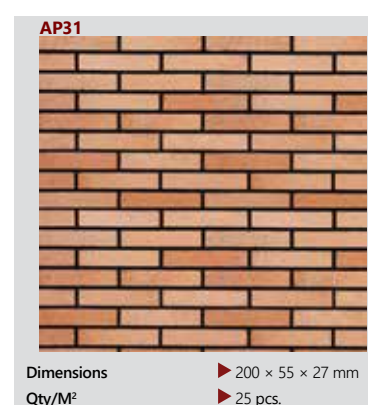
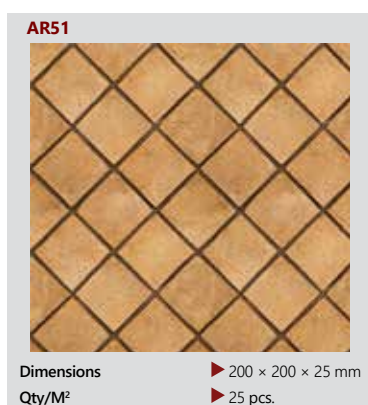
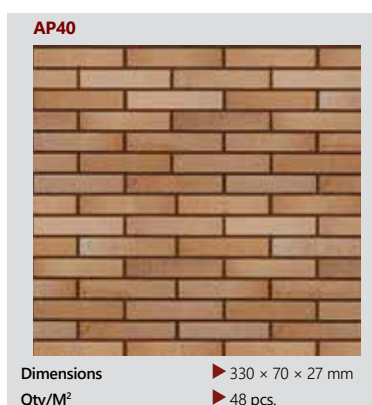
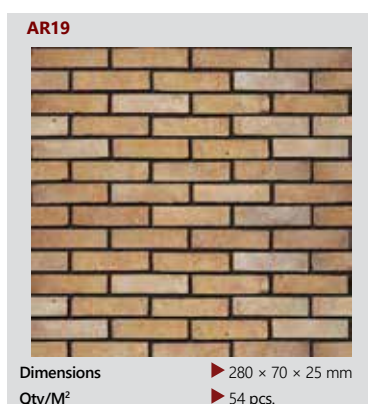
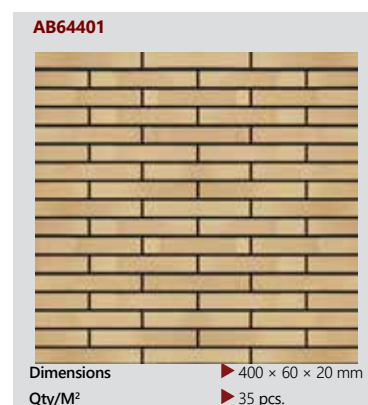
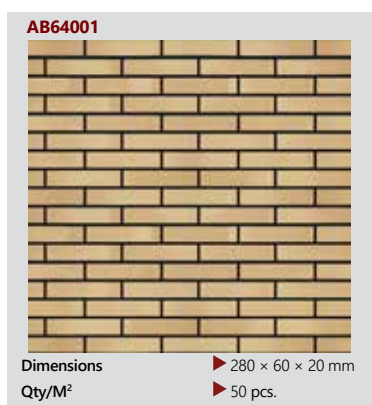
# Touch of Nature







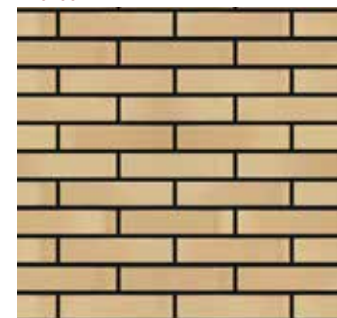
# Shamuti Brick





Azarakhsh Brick is the superior choice among architects, builders and homeowners who require high quality building products that meet both innovative design challenges and demanding construction specifications. Azarakhsh Brick is an industry leader for its' diversified product line of more than 1200 brick products, which are available in a wide-array of sizes and textures and colors. These products include Rustic brick, molded Modern, Antic brick, thin veneer brick and paving brick.

**AB64001**



Dimensions ▶ 280 × 60 × 20 mm  
 Qty/M<sup>2</sup> ▶ 50 pcs.



## The Strategic Approach Of Azarakhsh Group: Procuring A Global Product Based On Iranian Originality



آجر بها می دهد . خاص و چشم نواز می کند و تاریخ ساز است ، خصوصیت گرم و صمیمی بودن را در فضا منتشر می کند . این عنصر در ترکیب با سایر مصالح نما می تواند هویت ویژه ی خود را حفظ نماید و هماهنگی مناسبی را با دیگر مصالح برقرار سازد . این ویژگی بارز محصولات آذرخش ، از خصوصیات منحصر به فردی می باشد که حاصل طراحی ویژه ی آن است . آجر های نسوز نمای آذرخش حس ناب و گرم محیط را دو چندان می کند . این نوع از محصولات آجری با چیدمان های کلاسیک و مدرن در مکان هایی مانند کافی شاپ ها ، رستوران ها و اماکن هنری و فرهنگی ، هویت و ماهیت ، ذاتی این اماکن را چندین برابر می کند . از این رو است که آجر خود ماهیت هنری دارد



Azarakhsh Brick provides value, scenery and history. It spreads the characteristics of intimacy and warmth in space. This element may preserve its particular identity in

combination with other materials. It also provides better congruence with other materials. Such prominent characteristic of Azarakhsh Brick is of the unique characteristics which is the result of special design. Azarakhsh Firebricks redouble the pure and warm sense of environment. This type of Brick products with classic and modern arrangements in places such as coffee shops, restaurants, artistic and cultural places also redoubles the innate identity of these places.



### DESIGNED FOR FAMILY LIFE

After you've lived in a house completely made of bricks, you won't want to live anywhere else. The brick walls seem to have been created for dynamic family life, where people reorganize furniture, switch rooms and change direction as they go. The solid wall bears the stresses of everyday life and family activities. For this reason you can be glad that brick walls need no maintenance. Plastered walls are easy to clean, and at the same time shelves, cupboards and so on can be easily mounted directly onto the wall, without the help of additional devices and special tools. The load capacity of a screw is many times bigger than in the case of light building methods.



## BUILD GREEN WITH BRICKS

Brick is a trusted building material that lasts for many centuries. We actually don't know how long the bricks last, as some of the oldest buildings in the world are still standing and there is no doubt they'll keep standing. Thus, brick is one of the most ecological building materials on the market, as bricks will always last longer than wood, cast and other light building materials

A house completely made of bricks has a future, and the more energy-friendly you intend to build, the more relevant it becomes to decide on a completely brick-built house. By building in brick, you can enjoy a house that is both good for your health and your wallet.









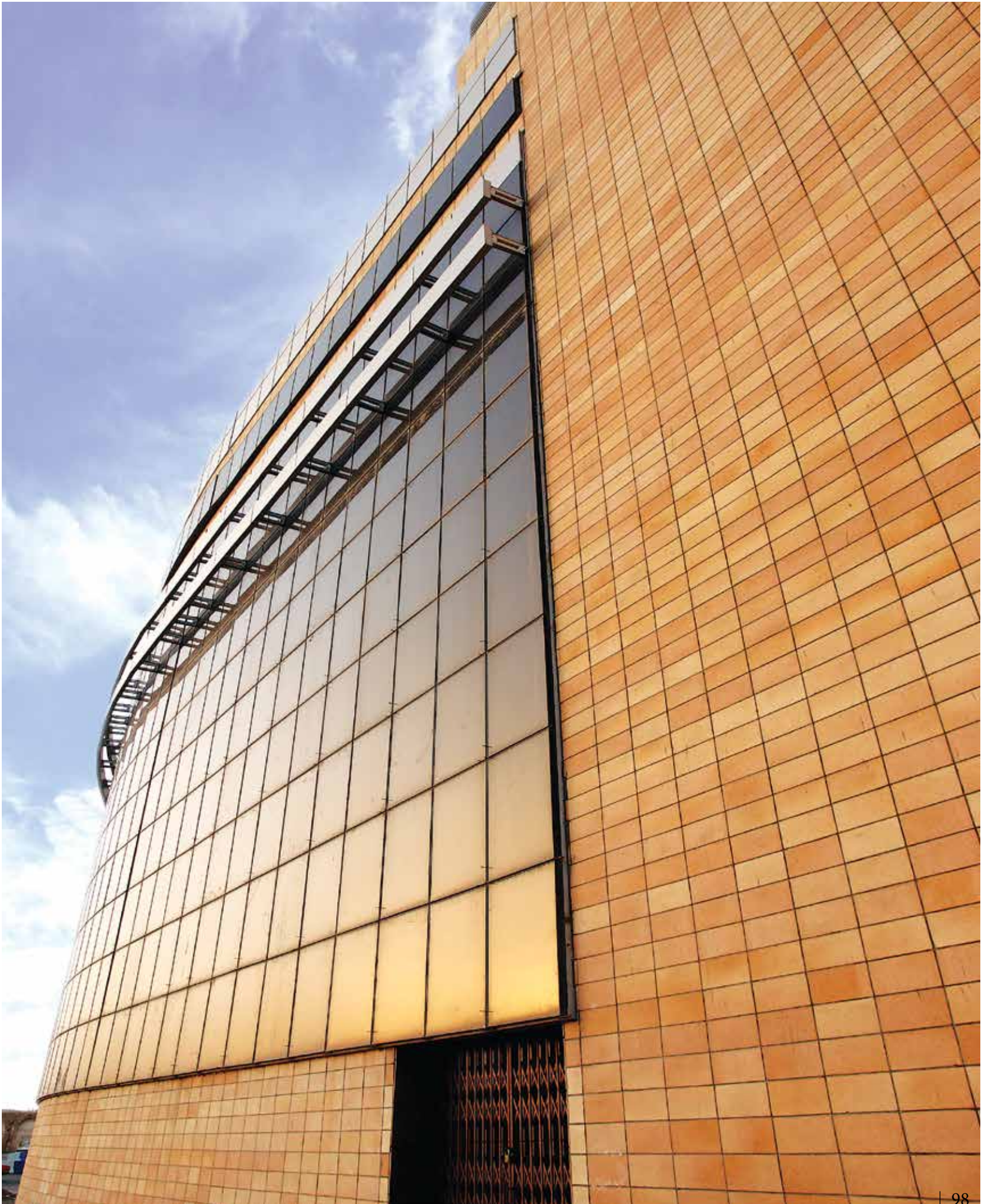


### WHAT IS AZARAKHSH BRICK SLIP?

Slips are thin slices of brick, about 1.2, 2, 2.7cm thick. They can be produced by mechanically robotic machinery original facing bricks. At Azarakhsh Group, most brick slips are produced from refractory raw materials. When applied to interior walls, you'll lose less space thanks to the reduced thickness. When jointed, the brick slips have the same appearance as ordinary brickwork with full bricks. They are lightweight and very easy to handle. PRODUCT RANGE For a beautiful finishing and perfect detailing, you can apply 4 different brick slips:

- Brick slip
- Corner slip
- Horizontal slip
- Loading Bricks





Azarakhsh Brick veneer is a non-structural layer of brick used in construction of buildings, placed at outer layer, generally backed by an air space. The materials used in brick masonry work and that in brick veneer are same, however, they differ in the construction technique used while placing bricks. In case of brick veneer, inner layer may be that of wood, metal or concrete. Before we move into the topic, it is necessary to understand the fine difference between Brick veneer and brick masonry work.





More comfortable, easier and faster..



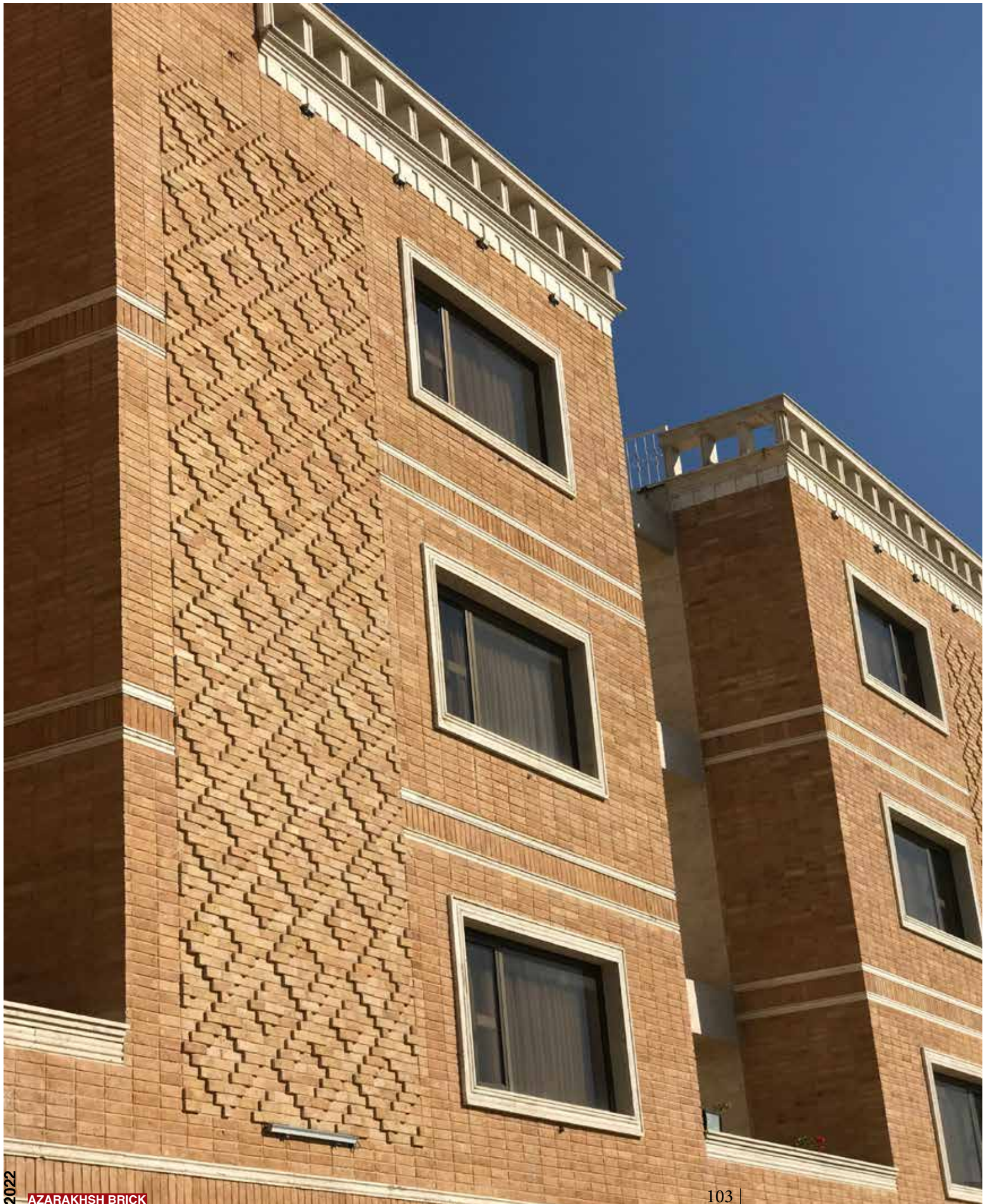
*Get a Perfect view* The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East

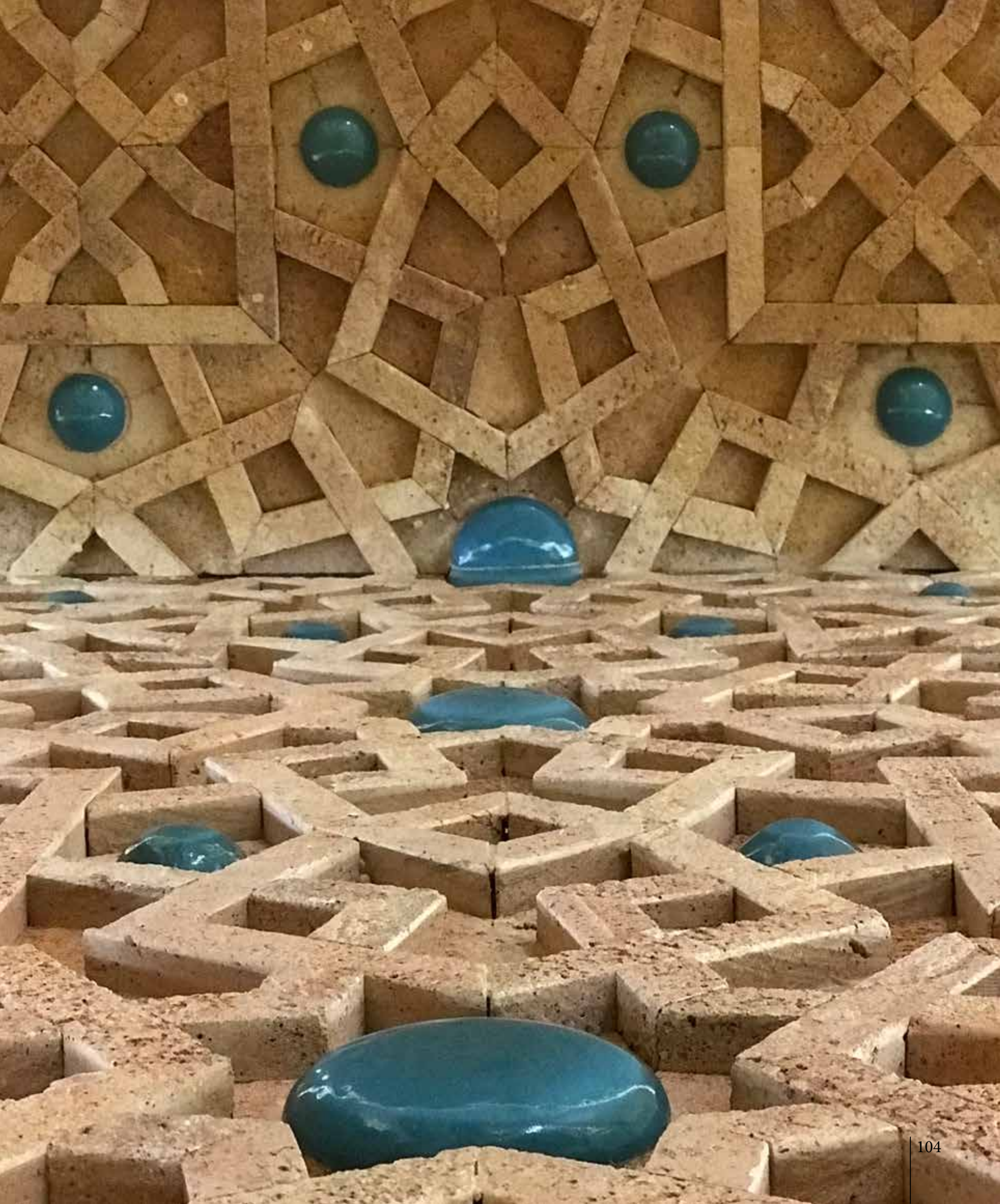




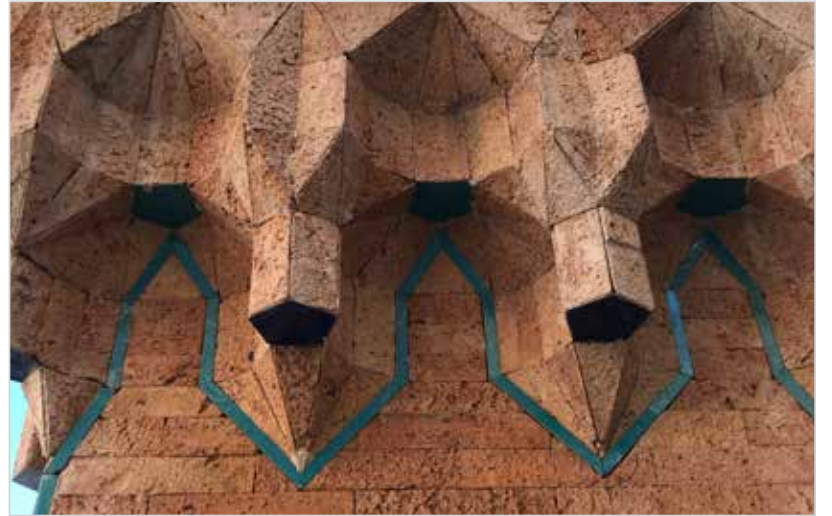
A generous design with a broad seat and sumptuous armrests. This reclining chair takes the boundaries of comfort to a whole new dimension of R&R. Your five-star place for pure relaxation and well-deserved unwinding.











‘ Azarakhsh Machine  
made Bricks in  
Diversity of design and  
extraordinary colored ,

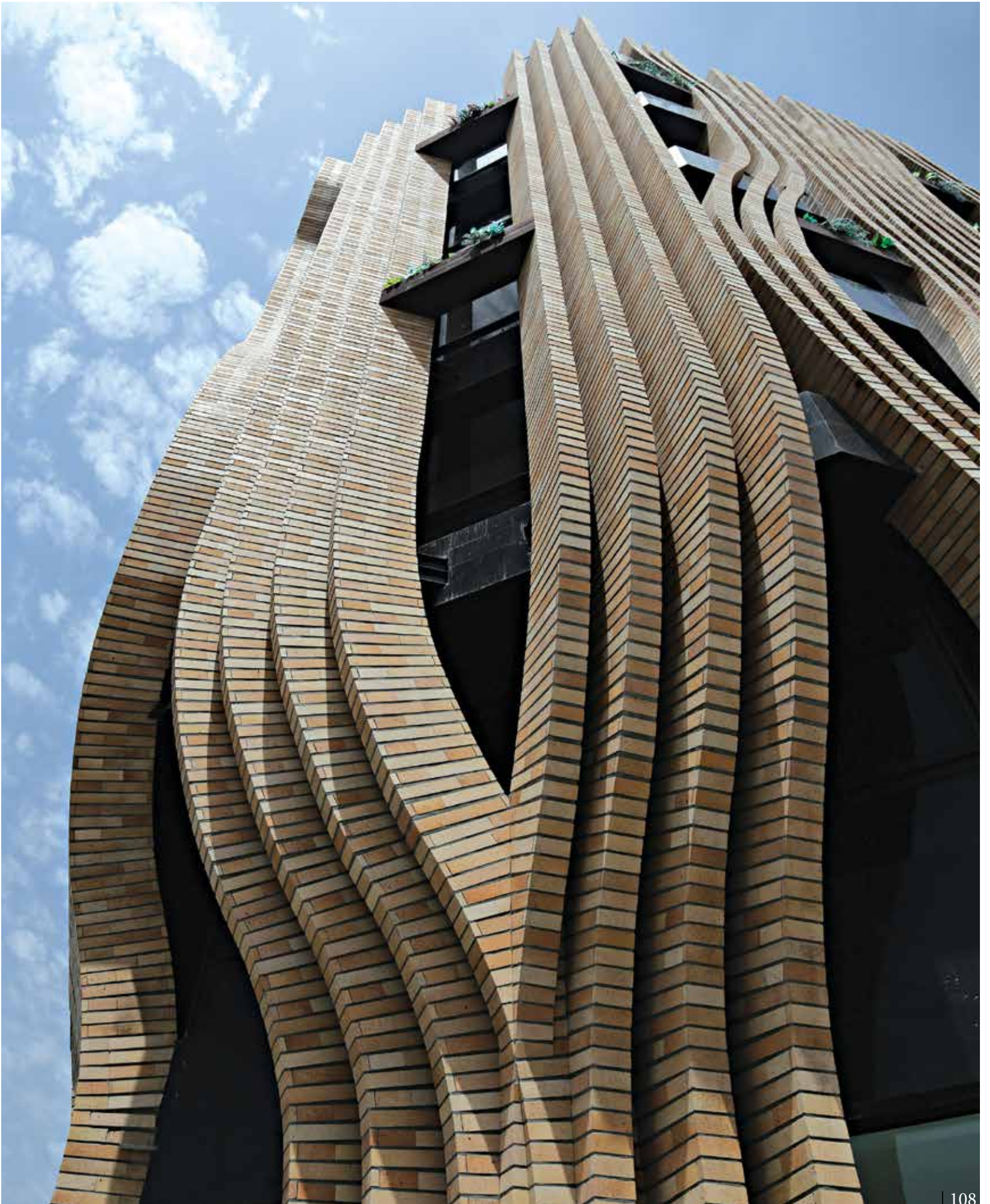




#### WHY WE ARE THE BEST

Azarakhsh Brickslips has the production capabilities and advanced technologies to produce consistent products that excel in quality and are available in quantity.







## Besides comfort, a building made of bricks also has some financial advantages.

In a house completely made of Azarakhsh bricks, the facade and the interior walls are also made of bricks. It presents many advantages, for example, a good indoor climate, durability and a good sale value.

A house made entirely of Azarakhsh bricks is an investment, and it pays off in the short-term and long-run. The extra cost of an internal wall made of bricks can be held down. that's why it is cost effective.

Besides comfort, a building made of bricks also has some financial advantages. Houses made entirely out of brickwork cost less in the long run, because they need less energy for heating. Research has proved that bricks for internal walls are best suited to households with passive and lower energy consumption, as the walls efficiently support the house's heating system and also absorb humidity that cannot escape through efficient climate shielding.

Finally, it is also very beneficial that houses completely made of bricks are often more attractive and attract higher values, should you want to sell them one day. This is down to, among other factors, the excellent properties relating to energy consumption and indoor climate, and in addition, houses completely made of bricks are already associated with better quality





## What makes a brick slip?

The slither of material that constitutes a brick slip is generally manufactured in one of two ways. The first is simply a modification of the process for conventional brick, which makes for a cost-effective product. Extruded clay is run down the production line but, crucially, wire-cut into slimline profiles before being kiln-fired



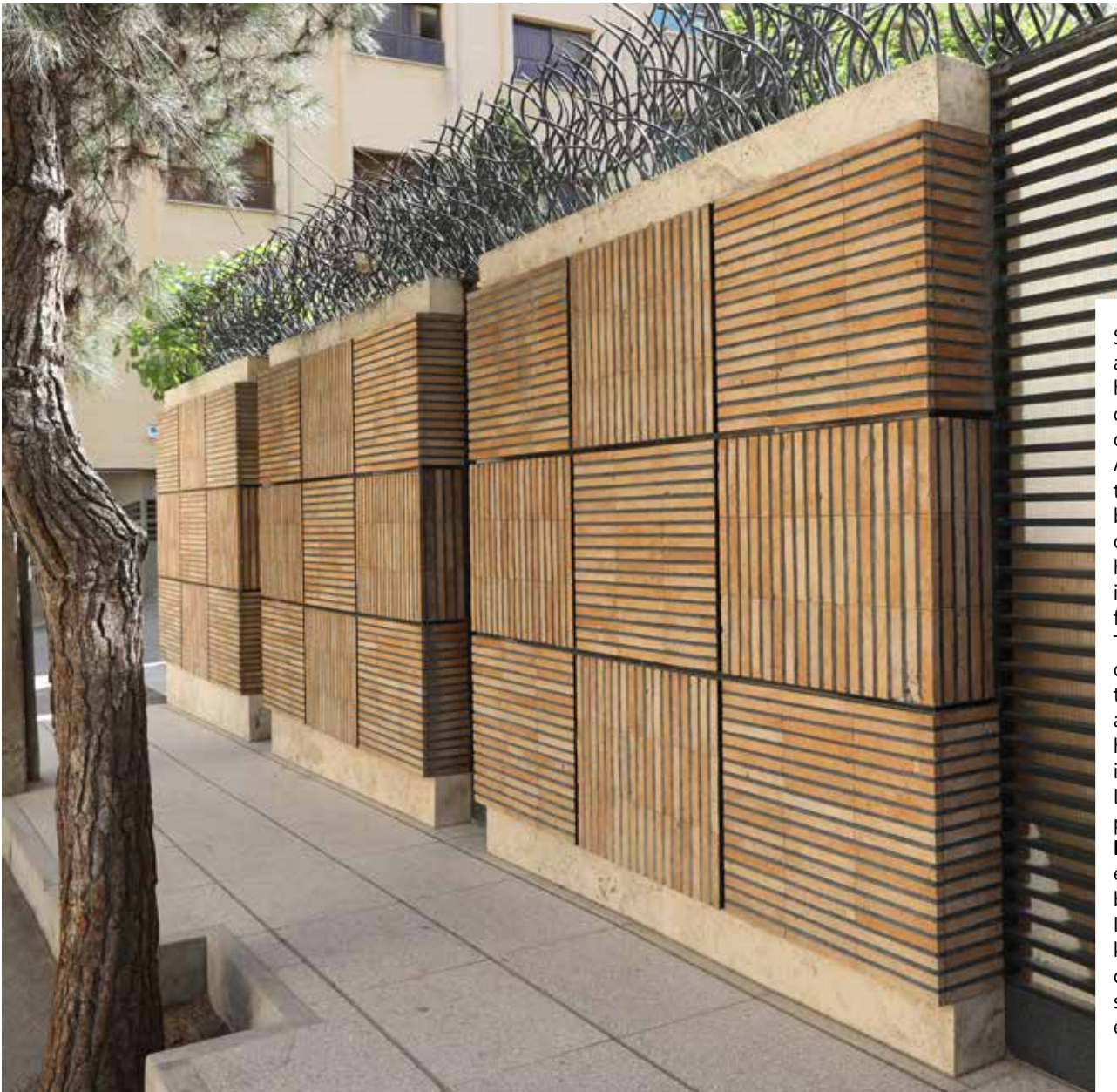
## What are brick slips?

Wall cladding is becoming more and more popular in homes and businesses alike, and the best way of doing so is by using the right slips for the look that you need. Wall cladding is a technique used to help change the look of a wall – internal or external – by using brick faces, or slips, to create a rustic or homely feel. Brick slip cladding can help transform the atmosphere of a coffee shop or restaurant, or can bring a rustic touch to a feature wall or fireplace in any home. Brick slips for fireplace installations, as it happens, are particularly growing in trend.

# Building Respectful partnerships



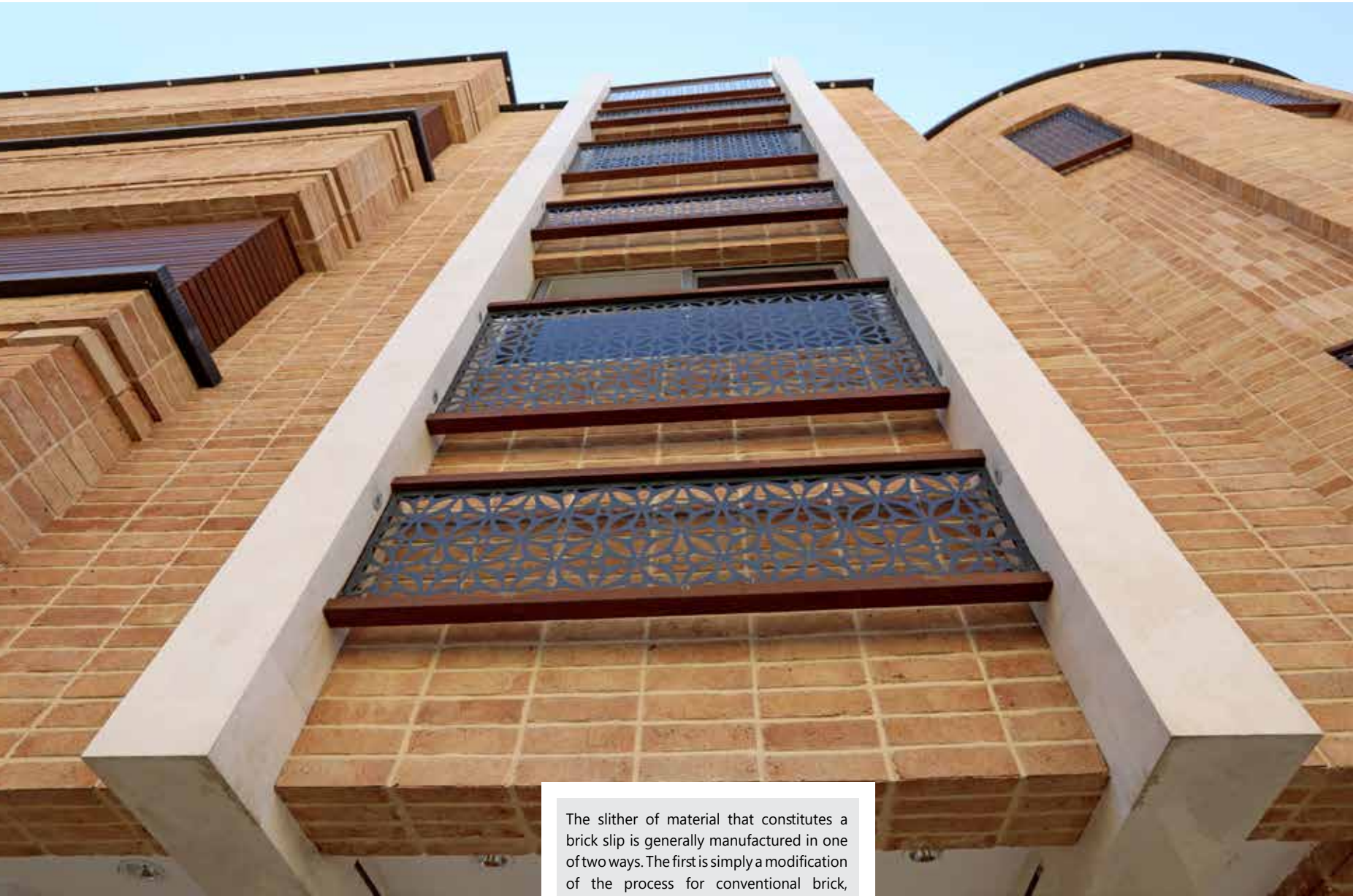
Facing bricks are the most popular type of brick and have been the facade material of choice in the world now a days, particularly in the housing market. Traces of loading brick first used from 7000 years ago to now modern and western countries facing bricks have been the first preference whether constructing a house, hospital, School to most modern university or commercial center. This material come with great versatility and dependability.



Scenic and religious places are designed for calmness of human' spirit and expression of the link between creator and creature.

Architecture is also dependent to such expression for these buildings and is reminiscent of indescribable calmness of human's spirit. **Azarakhsh Brick** is the most important element for this type of architecture. The special characteristics of **Azarakhsh Brick** are that they do have harmony, affinity and integrity with the human's soul since it takes it's energy from soil, i.e. life. Imaging religious and divine places without **Azarakhsh Brick** use architecture and its especial design has always been meaningless in history. In fact, it is the **Brick** which keeps it's affinity with the origin of calmness and reflects the sense in full temperament with environment.





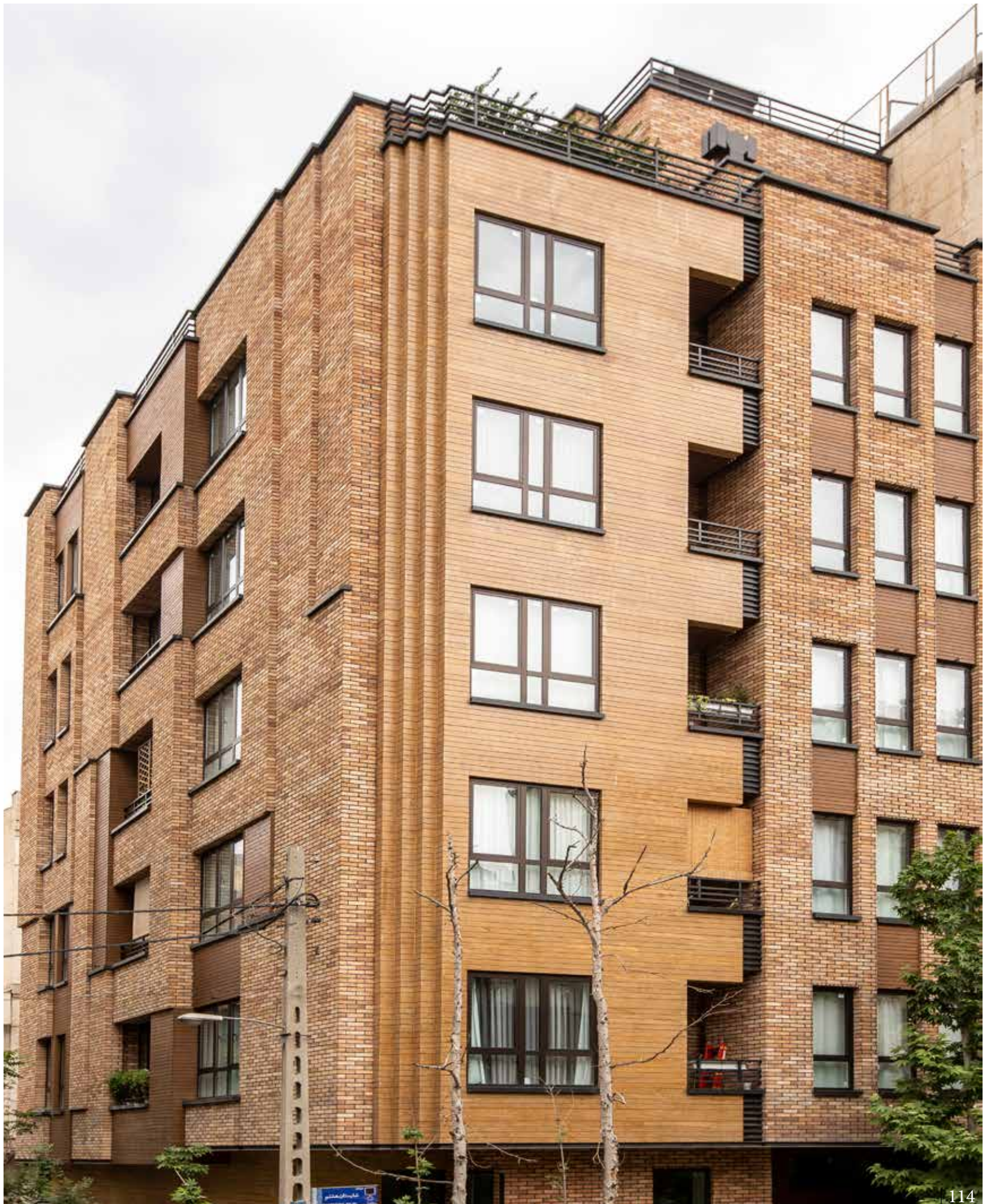
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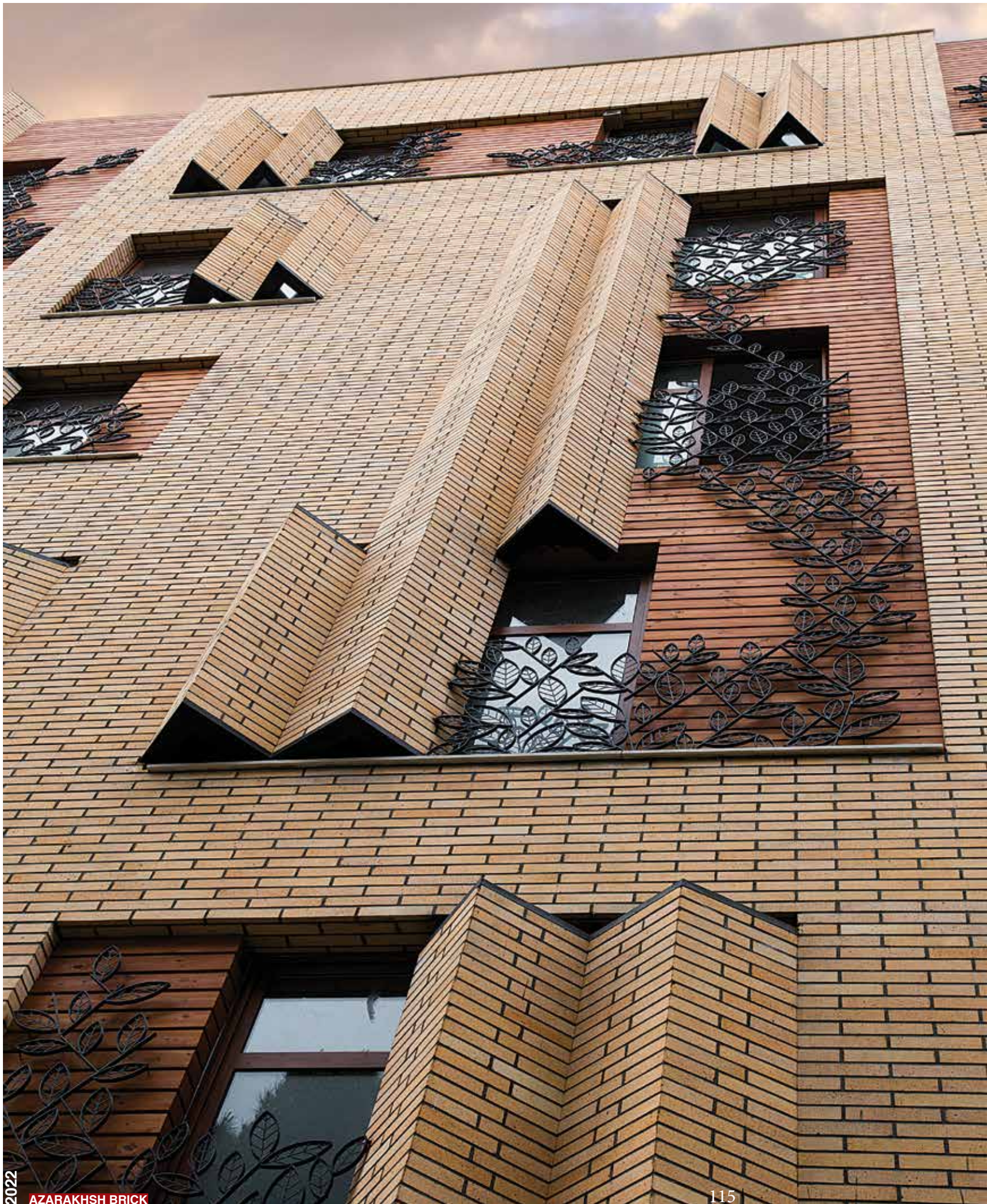


2022

AZARAKSH BRICK







Let's create something  
that changes someone.



Azarakhsh International Group of Firebrick Manufacturies



**CONSTANTLY PUSHING FORWARD**

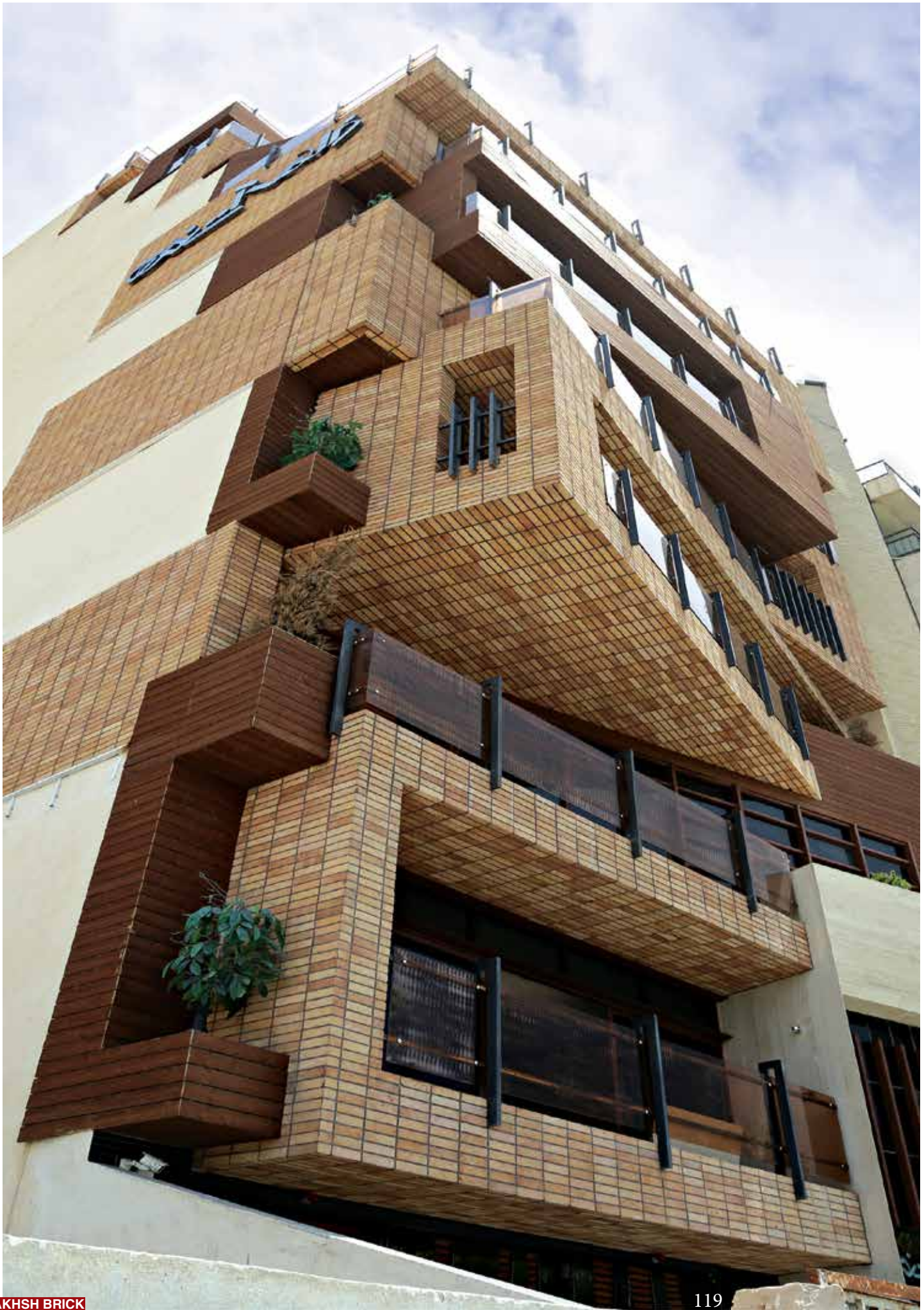
Our research on new trends, Azarakhsh brick types and technologies is continuously ongoing, so that any customer who chooses our products can be assured they are dealing with not only the market leader at present but the market leader for years to come.





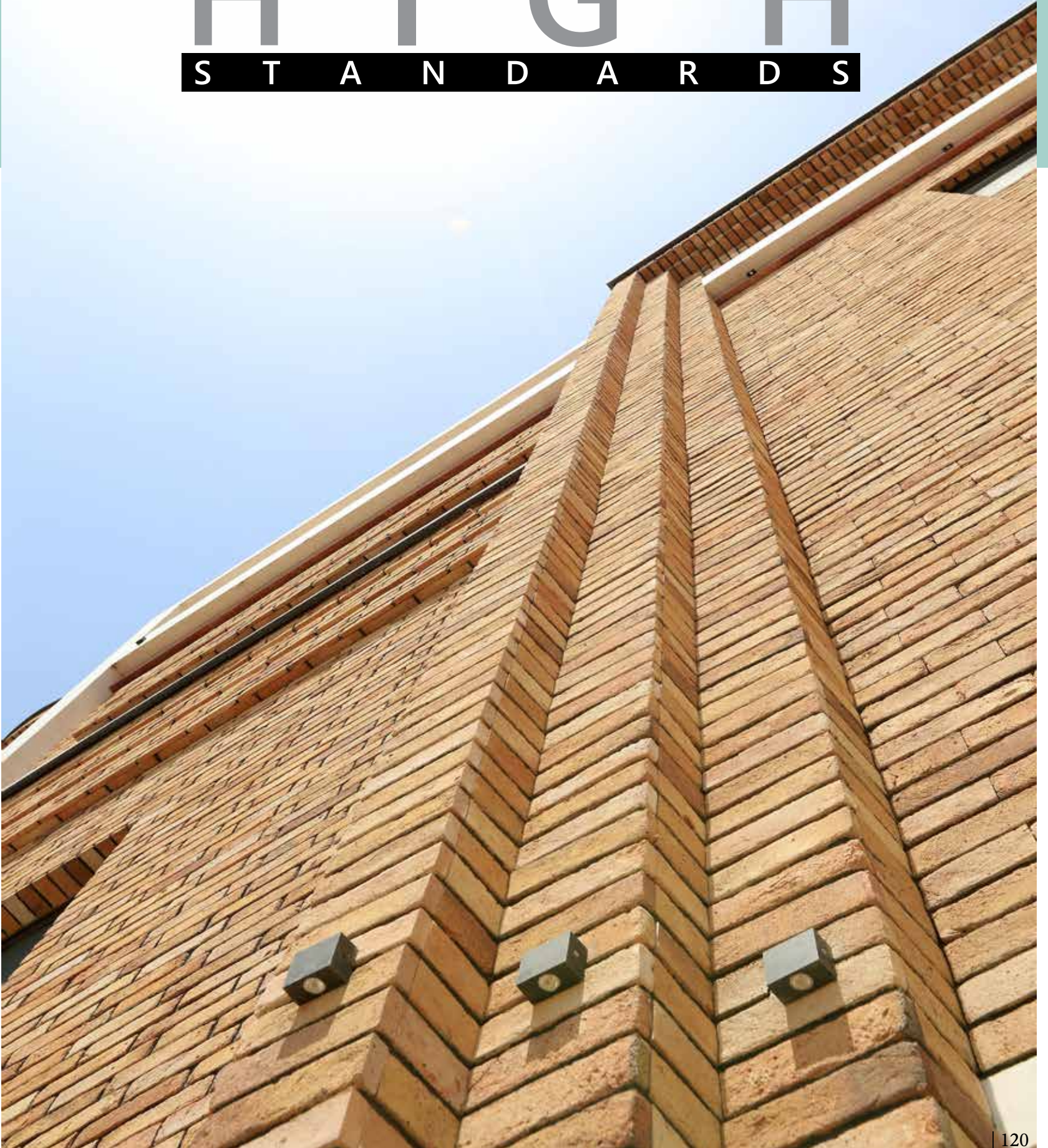
All construction materials react to temperature and moisture change and their volume consequently change. Pressures due to such volume changes result in adverse phenomena in buildings.

For this reason, some actions should be taken to reduce these differential changes (movements). of course, expansion joint systems may reduce crack potential and the appertaining problems to some extent. However, accurate prediction of these changes is very difficult for most of the buildings since they encounter the designers and executors with some problems at the conclusion or post-construction stages. In general, these changes depend on the properties of construction materials.



H I G H

S T A N D A R D S

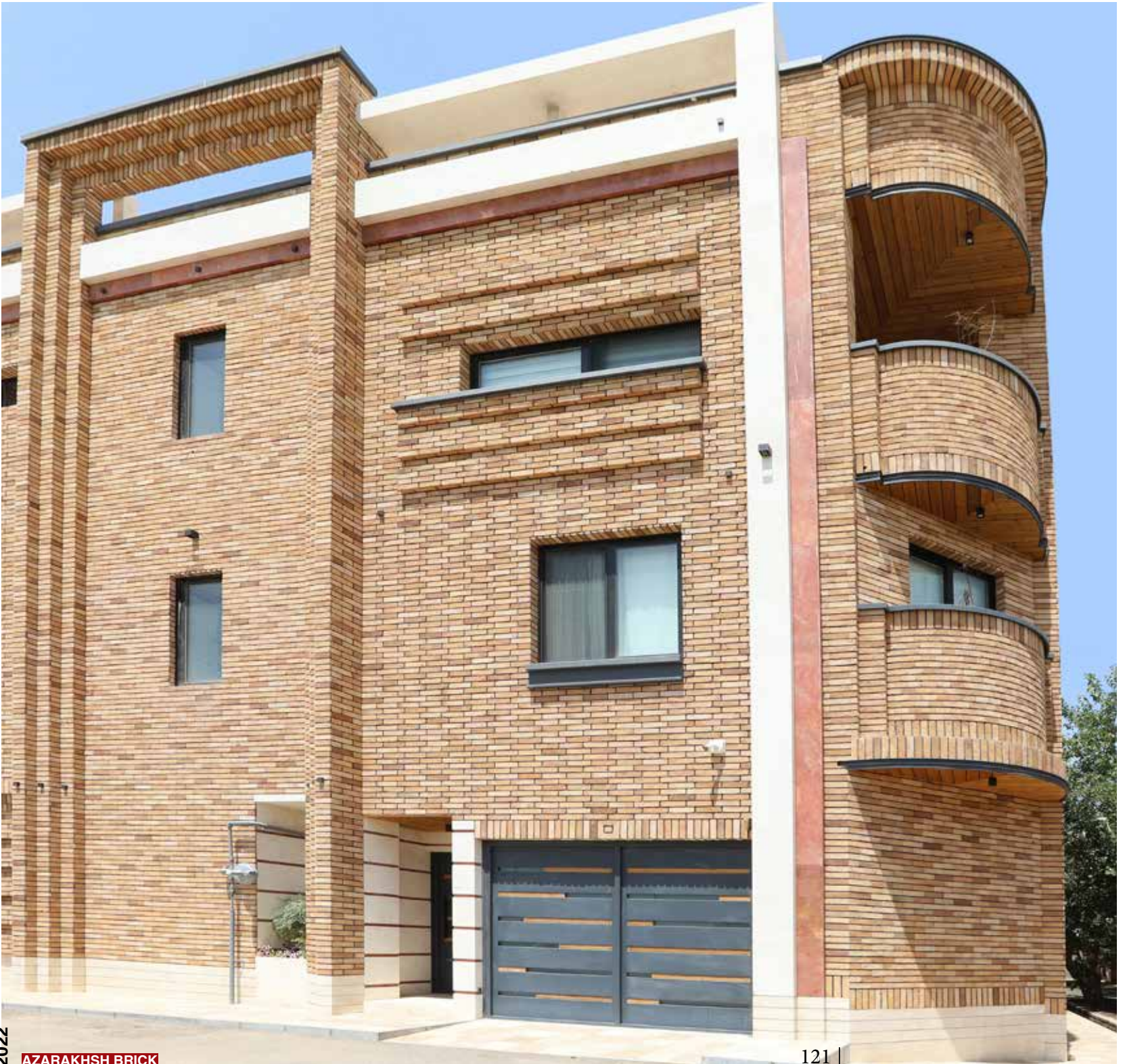






The facilities contribute to  
mental and physical wellbeing

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Brick veneer is a non-structural layer of brick used in construction of buildings, placed at outer layer, generally backed by an air space. The materials used in brick masonry work and that in brick veneer are same, however, they differ in the construction technique used while placing bricks. In case of brick veneer, inner layer may be that of wood, metal or concrete. Before we move into the topic, it is necessary to understand the fine difference between Brick veneer and brick masonry work.



# Surfaces, colors and formats from Azarakhsh

One of the most important properties of **Azarakhsh Refractory Bricks** is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these **Bricks** become cool in summer and warm in winter since it does not let the energy be lost. Of the other properties of our **Bricks**, diversity of color may be exemplified. This color originates from color-making elements in mineral compounds. In addition, high temperature baking manifests the vast colors after production of Refractory **Bricks**. These **Bricks** will then be constant from the view point of color against sunlight. All **Bricks** are composed of naturally- occurring materials and they all have organic compounds. Presence of these compounds in **Bricks** result in efflorescence and reduces the beauty of facade. This phenomenon is more tangible in clayey **Bricks**. The organic compounds of the produced **brick** are totally ruined in temperature of above 1100 °C. As a result, when these compounds are ruined, no efflorescence occurs. For this reason, results of efflorescence tests are very slight due to above mentioned issue.





## **The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East**

Exclusive Properties of Azarakhsh Bricks One of the most important properties is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these Bricks become cool in summer and warm in winter since it does not let the energy be lost.

# HIGH ARCHITECTURAL QUALITY



# THE PRODUCTION PROCESS

## A PROCESS WITH RESPECT FOR THE ENVIRONMENT

Natural raw materials Azarakhsh production process uses absolutely no synthetic products or chemical processing techniques. Azarakhsh bricks are created purely through the combination of natural elements: clay, sand, water, air and fire. No toxic substances are added, and because brick is an inert material it does not give off any toxic or allergenic substances. This means that it presents absolutely no danger of soil contamination. Thrifty with energy Minimizing energy consumption through continuous improvement of the production process has been a key objective at Azarakhsh Brick for decades. We

utilize computer-controlled gas-fired tunnel kilns for the firing process. The hot air from the kilns is recuperated to dry the bricks in the drying chambers. We also use a combined heat and power plant to further reduce our energy consumption. Purified air emissions Azarakhsh Brick considers it important that every effort be made to protect the quality of the air. Years ago we began using energy-efficient tunnel kilns fired with natural gas, the cleanest and most environmentally-friendly fuel available. A flue gas filter is used to remove particulates from the combustion gases as well. These combined measures result

in purified emissions with results of many measurements falling far below the stringent standards. No waste during production of our facing bricks we achieve a yield of 100%. In other words, every kilogram of raw material results in a kilogram of brick. This also means that the production process produces no waste. The groundwater used during the process circulates in a closed circuit, so absolutely no industrial wastewater is produced – it is what is referred to as a 'zero discharge' process. The only waste that leaves the factory is a limited amount of packaging waste.



### AR19

Dimensions ▶ 280 × 70 × 25 mm  
Qty/M<sup>2</sup> ▶ 54 pcs.





### **A HOUSE COMPLETELY MADE OF AZARAKHSH BRICKS ONLY OFFERS ADVANTAGES**

Perhaps you know exactly what you want? Perhaps you're still on the lookout for more options and you're currently welcoming suggestions for the perfect house? One thing is sure: when you finish your house, you'll spend many hours inside it. We spend up to 90% of our time indoors. This is why it makes sense to integrate the indoor climate into the planning process when you intend to build a house

Brick is one of the most suitable materials for indoors, if you want to offer your family the best climate. There are many reasons for this - actually, so many that we could print a whole leaflet just about the advantages of a house completely made of bricks.

In a house completely made of bricks, the facade and the interior walls are also made of bricks. You'd also have heavier walls, in comparison to lighter alternatives, such as porous concrete, cement, gypsum or wood.





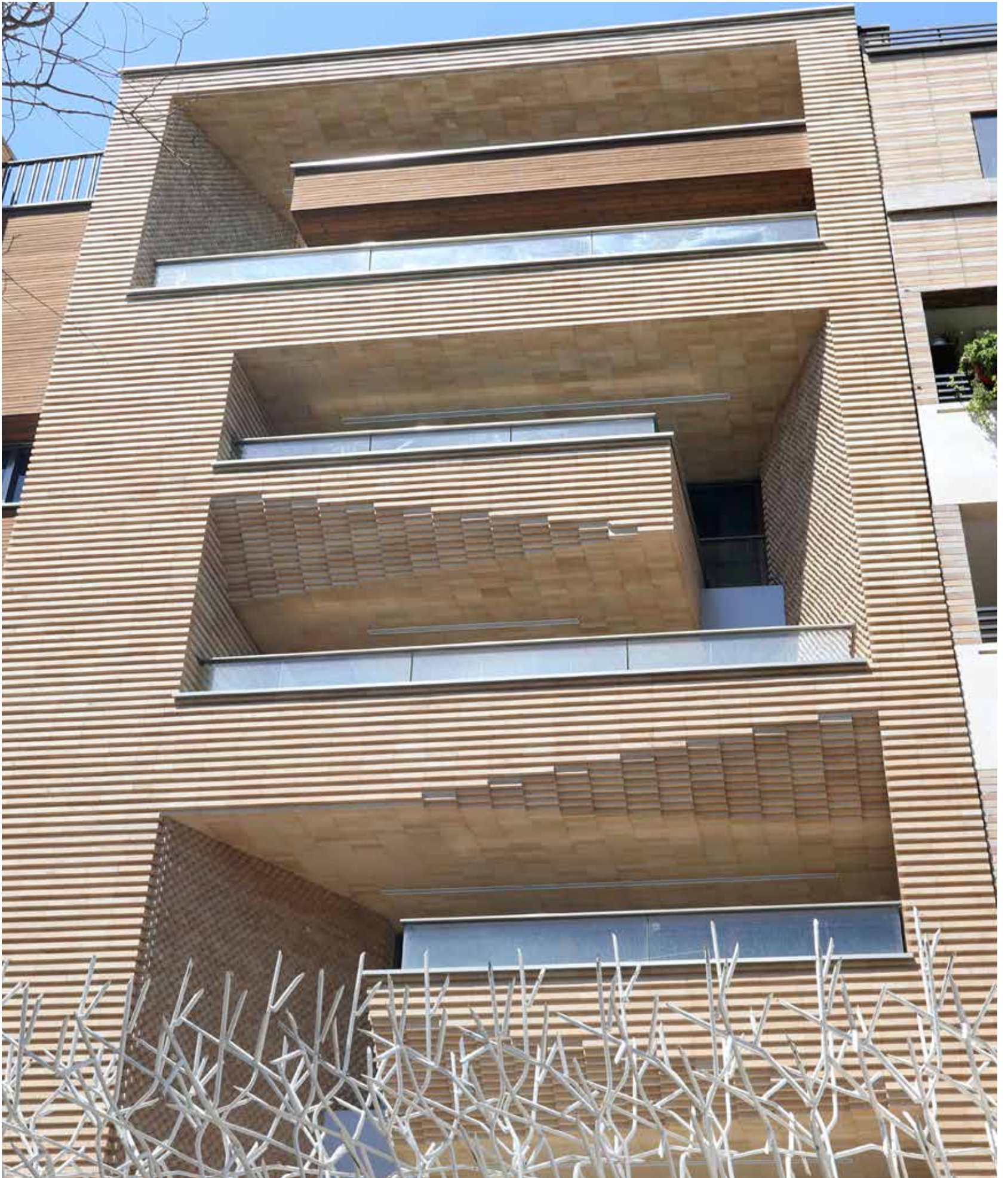
Product

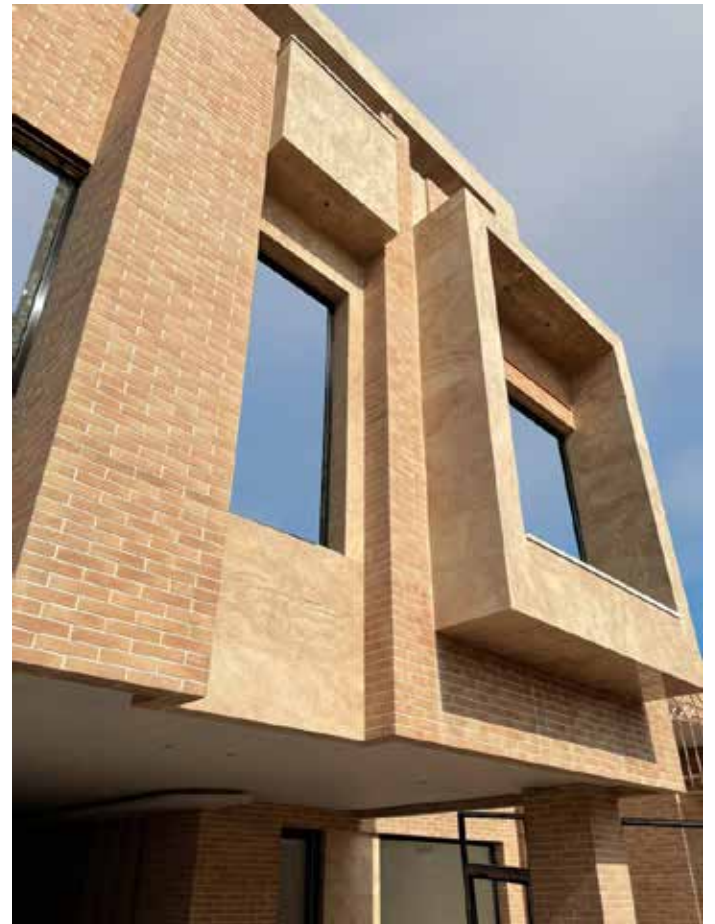
Diversity

## The only limitation is your imagination.

For more design ideas and examples of our products in use, please have a look at our latest completed projects in catalogue or if possible we can meet in our central showroom in Tehran. If you require advice or technical information on any of our products please do not hesitate to give us a call on +9821 2721 or alternatively send an email to [sales@azarakhsh.ir](mailto:sales@azarakhsh.ir)







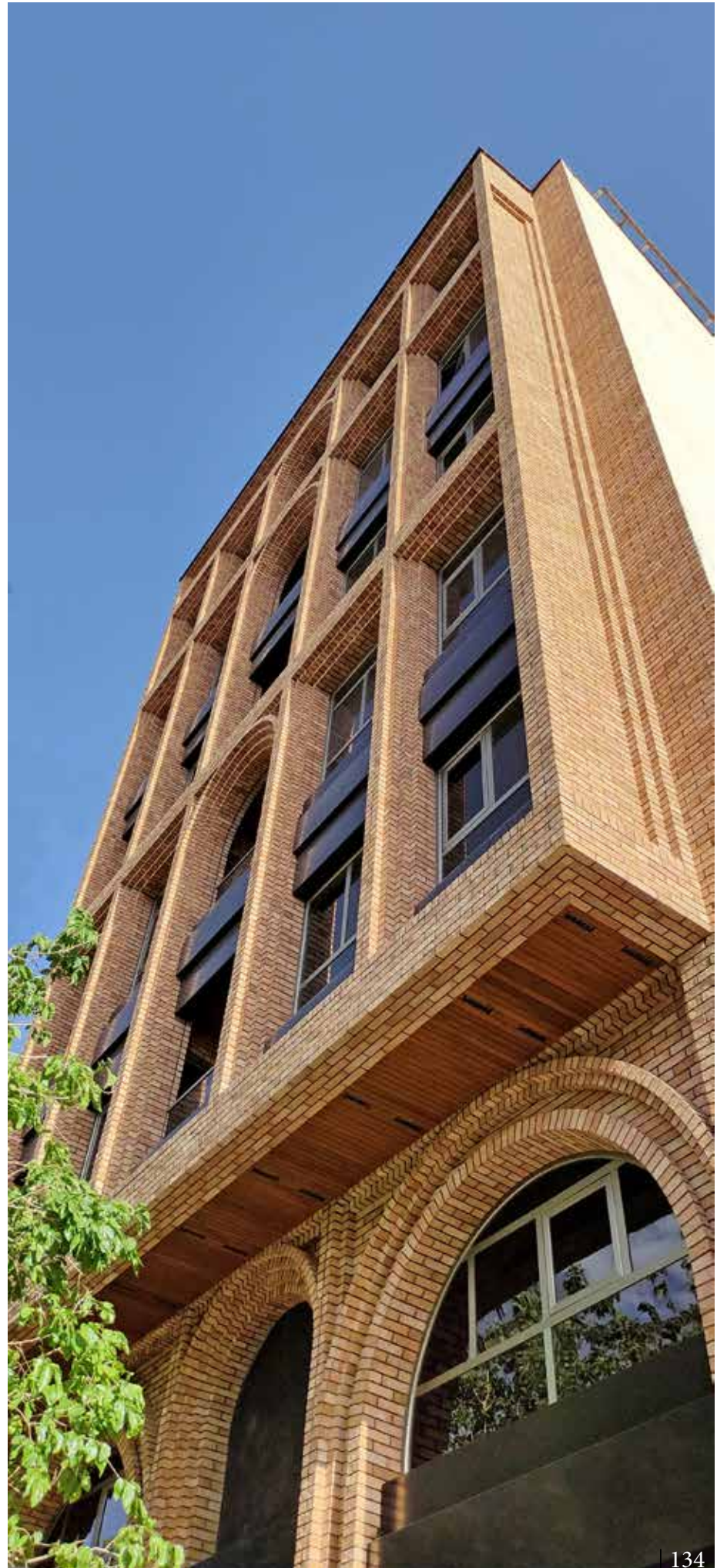
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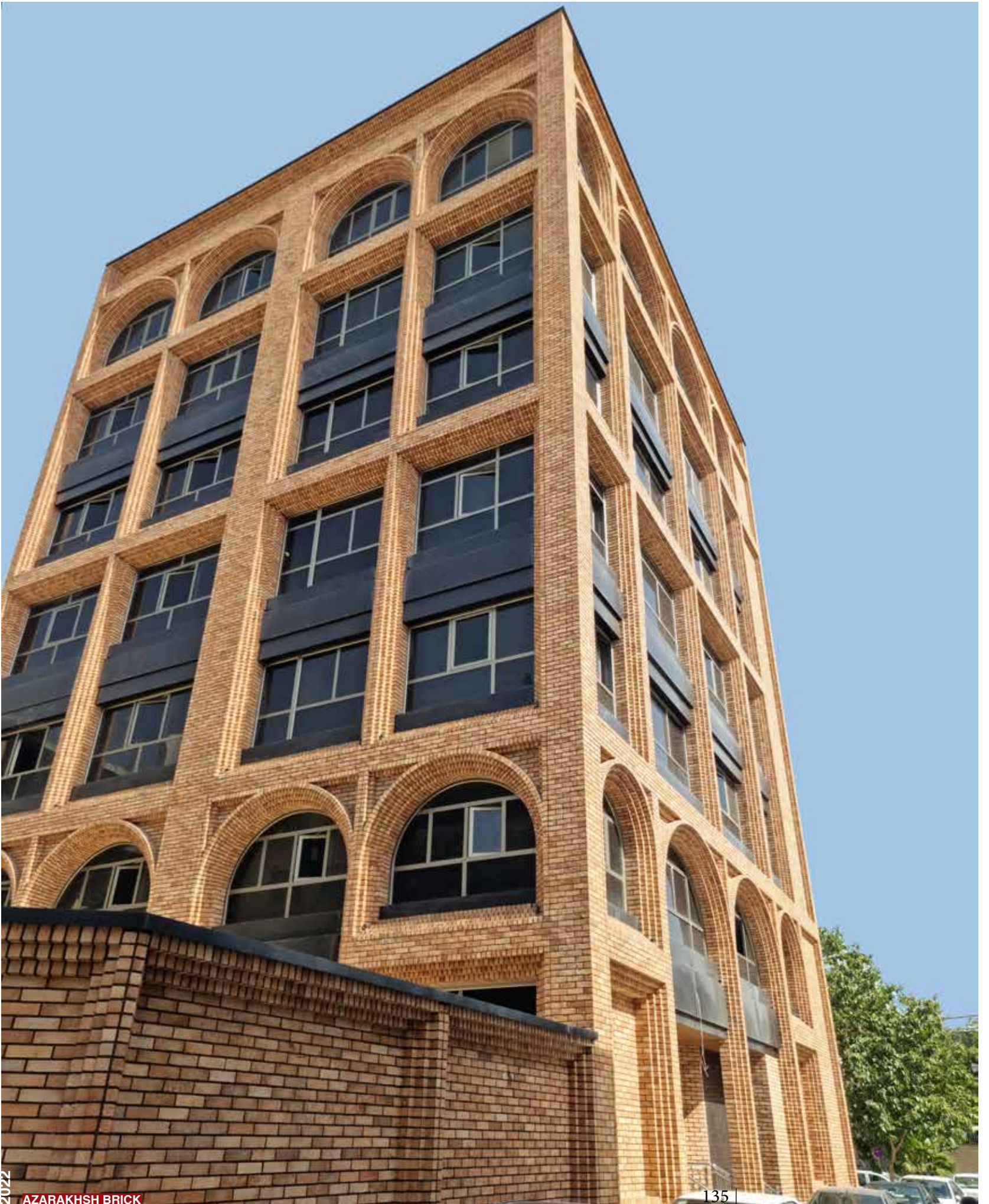


**All Bricks are composed of naturally occurring materials and they all have organic compounds.**

Sizes of bricks have been evolved during time and coordinated with the human's body structure and ability. Its size makes it to be matched together easily. This property provides countless engineering properties in the location of two walls contact. Bricks are fixed to each other through mortar and provide a uniform surface. Due to their proper sizes, these materials have been used to create arc and dome since the era of Sassanid dynasty in Iran.









Due to geographic position of Iran and the desert nature of many of its places, **Azarakhsh Bricks** are technically compatible with Iran's climate. In addition to beauty, they are also compatible with Iran's climate technically. This product is a very appropriate heat and cold-proofed. Moreover, it has a great strength against atmospheric factors due to its natural structure. Beauty and congruency with nature as well as long immanency associates the name of **Brick** in mind.







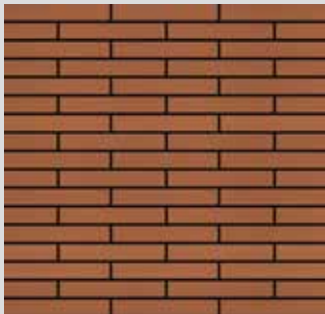




**RED  
&  
BROWN**

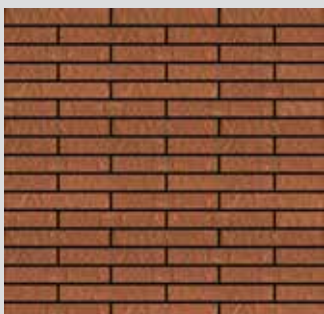


**AB42401**



Dimensions ▶ 400 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 35 pcs.

**AB42405**



Dimensions ▶ 400 × 60 × 20 mm  
Qty/M<sup>2</sup> ▶ 35 pcs.

**AB42051**




Dimensions ▶ 200 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 24 pcs.

**AB42055**



Dimensions ▶ 200 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 24 pcs.

**AB42056**



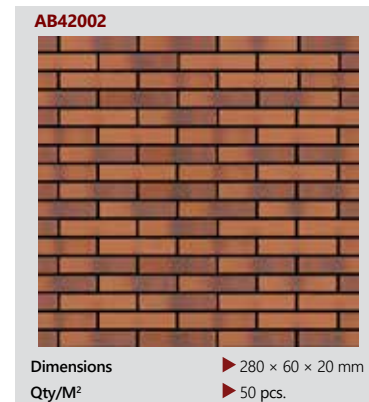
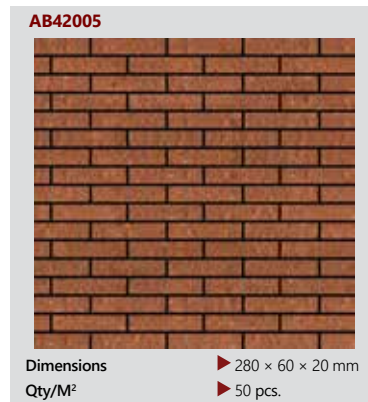
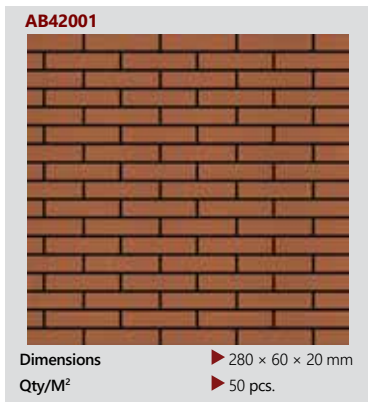
Dimensions ▶ 200 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 24 pcs.

**AB42251**



Dimensions ▶ 900 × 200 × 20 mm  
Qty/M<sup>2</sup> ▶ 6 pcs.

# Red Brick



AP29



Dimensions ▶ 260 × 55 × 27 mm  
Qty/M<sup>2</sup> ▶ 60 pcs.

AP38



Dimensions ▶ 330 × 70 × 27 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

AP32



Dimensions ▶ 260 × 55 × 27 mm  
Qty/M<sup>2</sup> ▶ 60 pcs.

AP41



Dimensions ▶ 330 × 70 × 27 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

AP154



Dimensions ▶ 100 × 100 × 27 mm  
Qty/M<sup>2</sup> ▶ 100 pcs.

AP137



Dimensions ▶ 230 × 50 × 50 mm  
Qty/M<sup>2</sup> ▶ 87 pcs.

AR80



Dimensions ▶ 200 × 50 × 25 mm  
Qty/M<sup>2</sup> ▶ 100 pcs.

AR20



Dimensions ▶ 280 × 70 × 25 mm  
Qty/M<sup>2</sup> ▶ 54 pcs.

AR02



Dimensions ▶ 200 × 100 × 25 mm  
Qty/M<sup>2</sup> ▶ 50 pcs.

AR43



Dimensions ▶ 100 × 100 × 25 mm  
Qty/M<sup>2</sup> ▶ 100 pcs.

AR52



Dimensions ▶ 200 × 200 × 25 mm  
Qty/M<sup>2</sup> ▶ 27 pcs.

AR27



Dimensions ▶ 280 × 70 × 25 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

AR88



Dimensions ▶ 200 × 50 × 25 mm  
Qty/M<sup>2</sup> ▶ 100 pcs.

AR95



Dimensions ▶ 200 × 100 × 25 mm  
Qty/M<sup>2</sup> ▶ 50 pcs.

AR57



Dimensions ▶ 200 × 200 × 25 mm  
Qty/M<sup>2</sup> ▶ 27 pcs.

# MATERIAL SOLUTIONS

FOR A BETTER QUALITY OF LIFE.



Azarakhsh International Firebrick

# CREATIVE SPACE WE WORK HERE







A Brick-made building is a part of nature. Harmony not only disturbs it but also grants its scenic color and form. This type of building is always preferred and advances though passage of time. A Brick-made building like a hand-made carpet is a combination of endless elegances of artist architects.

The secret of **Brick** ability for creating the most fantastic buildings of history is due to its proportionality. A **Brick**-made building is a part of nature. This building not only disturbs its congruency with nature but also provides a scenic color and form. Therefore, it has been always preferred by people. Like a hand-made carpet, it is the endless elegances of architects. The other property which brings exclusivity for **Brick veneer** is its different sizes (**dimension**). These sizes have been evolved during time and coordinated with the human's body structure and ability.

Its size makes it to be matched together easily. This property provides countless engineering properties in the location of two walls contact. **Bricks** are fixed to each other through mortar, adhesive and provide a uniform surface. Due to their proper sizes, these materials have been used to create arc and dome since the era of Sassanid dynasty in Iran.





مدرسة القرآن الكريم

مدرسة القرآن الكريم



## Azarakhsh Facade Bricks

High abilities of Azarakhsh Bricks to create diverse and genuine forms yields to fruitfulness of Creative thoughts of architects and facade Designers.

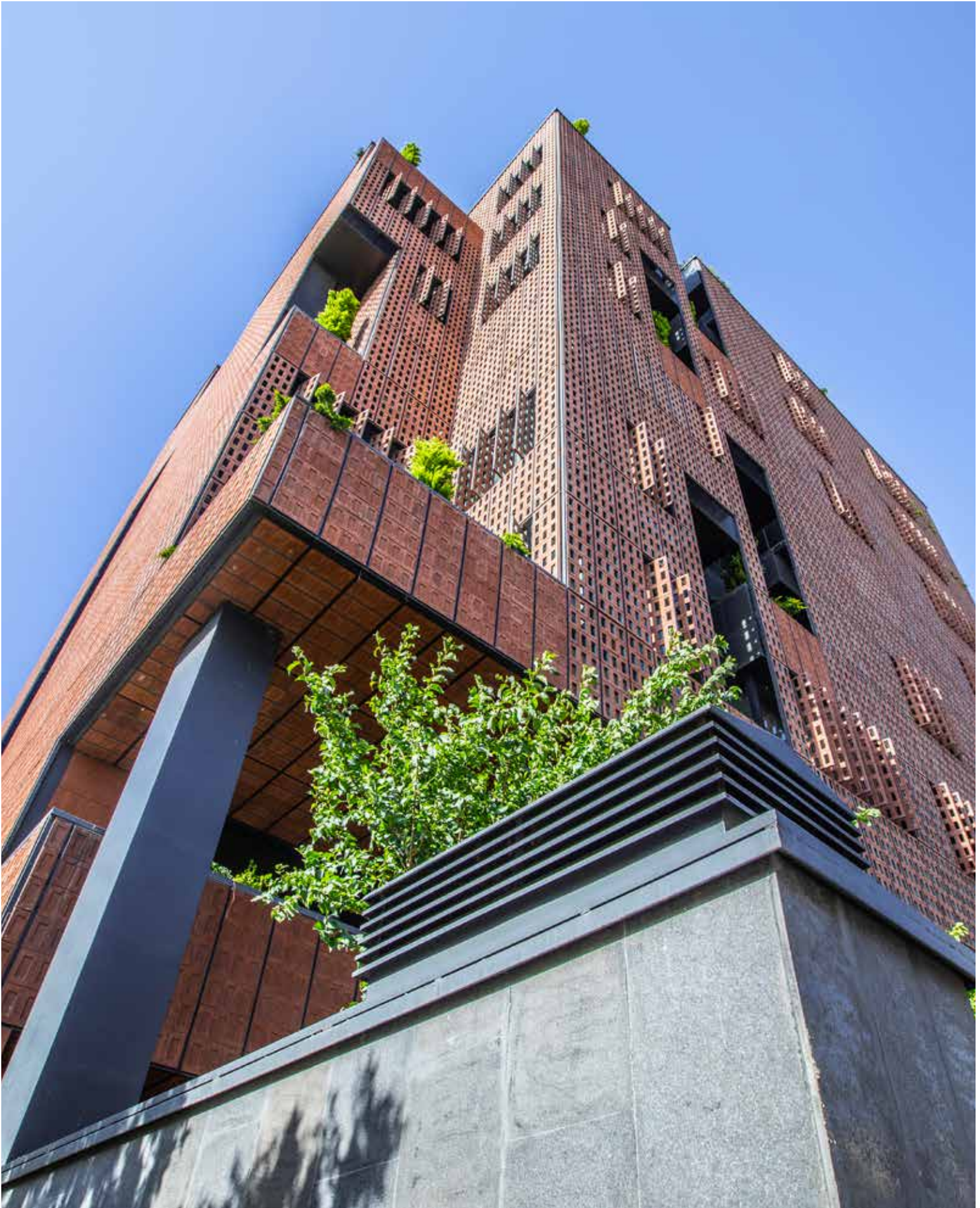
In fact, these Bricks can be classified as creative and renovating materials Which have created creative masterpieces in Designs and architectures of all times.



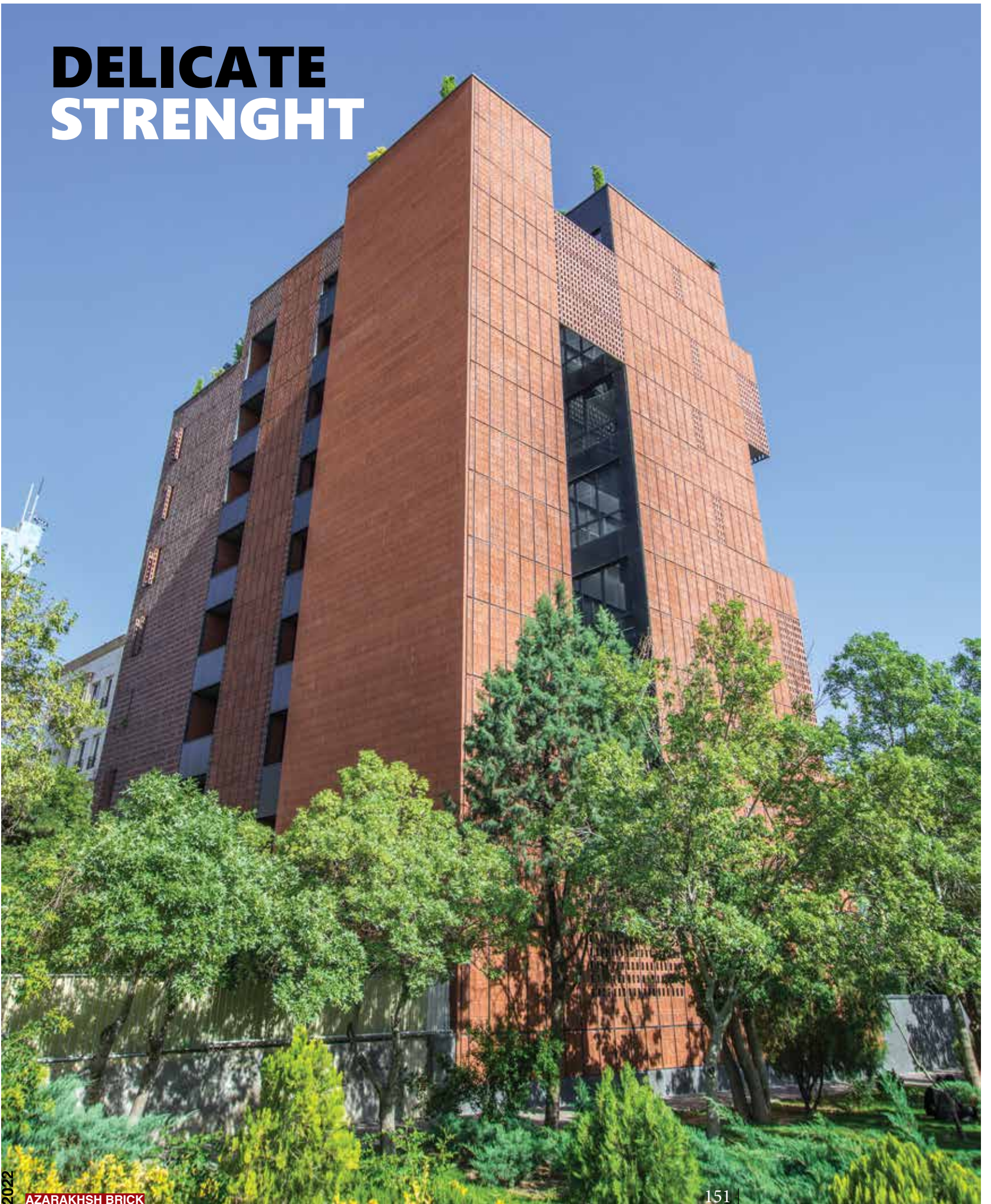
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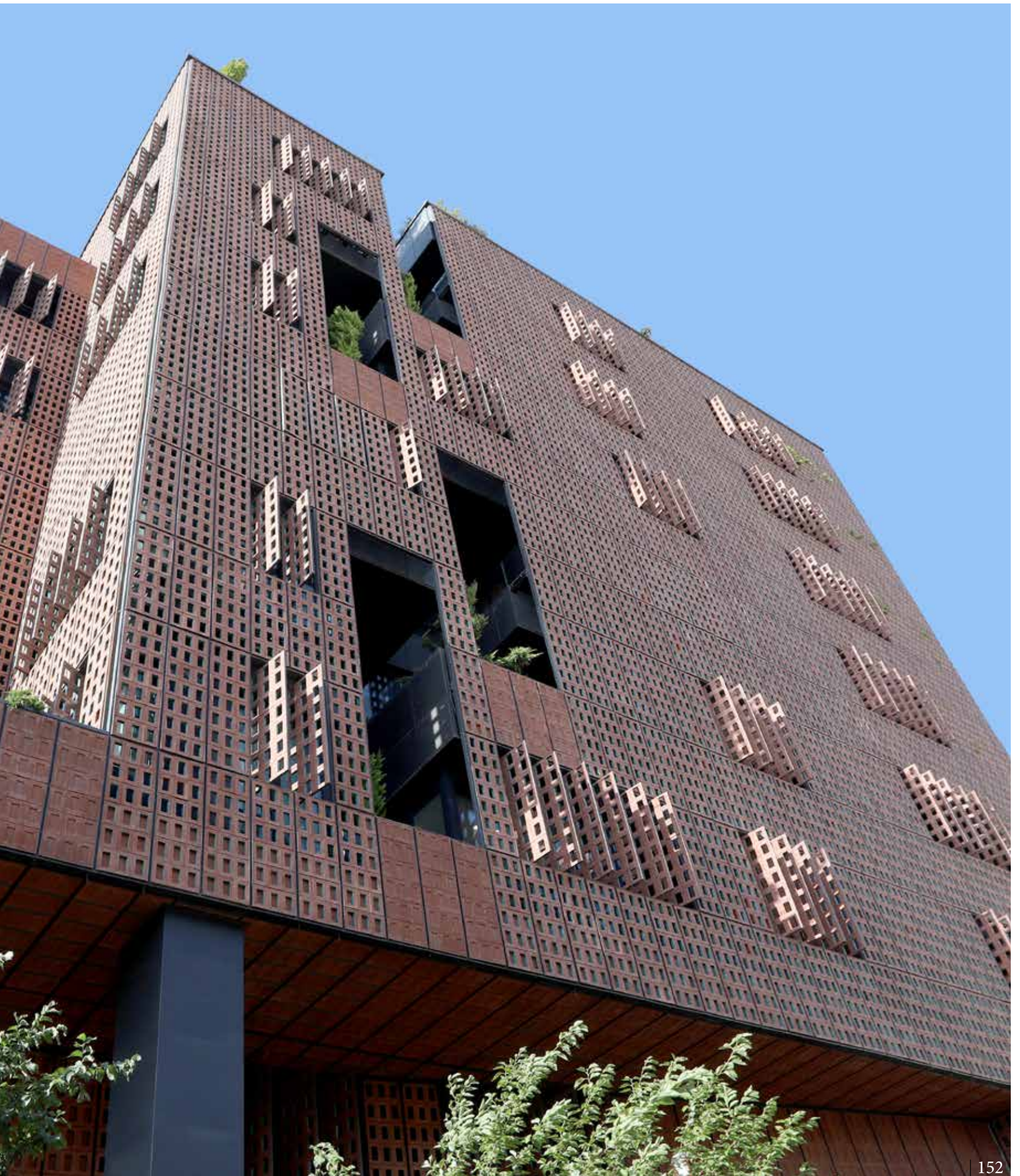
‘ Building a house exclusively of bricks can be costly, but it’s a sensible investment that ,





# DELICATE STRENGTH

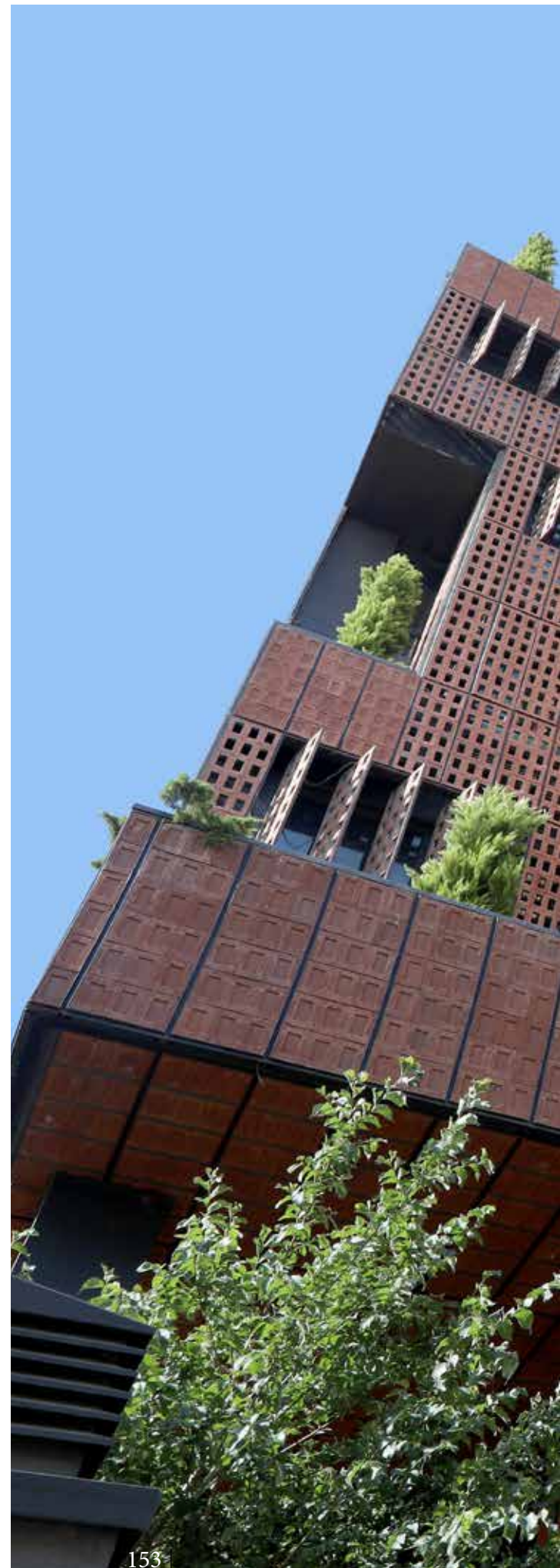


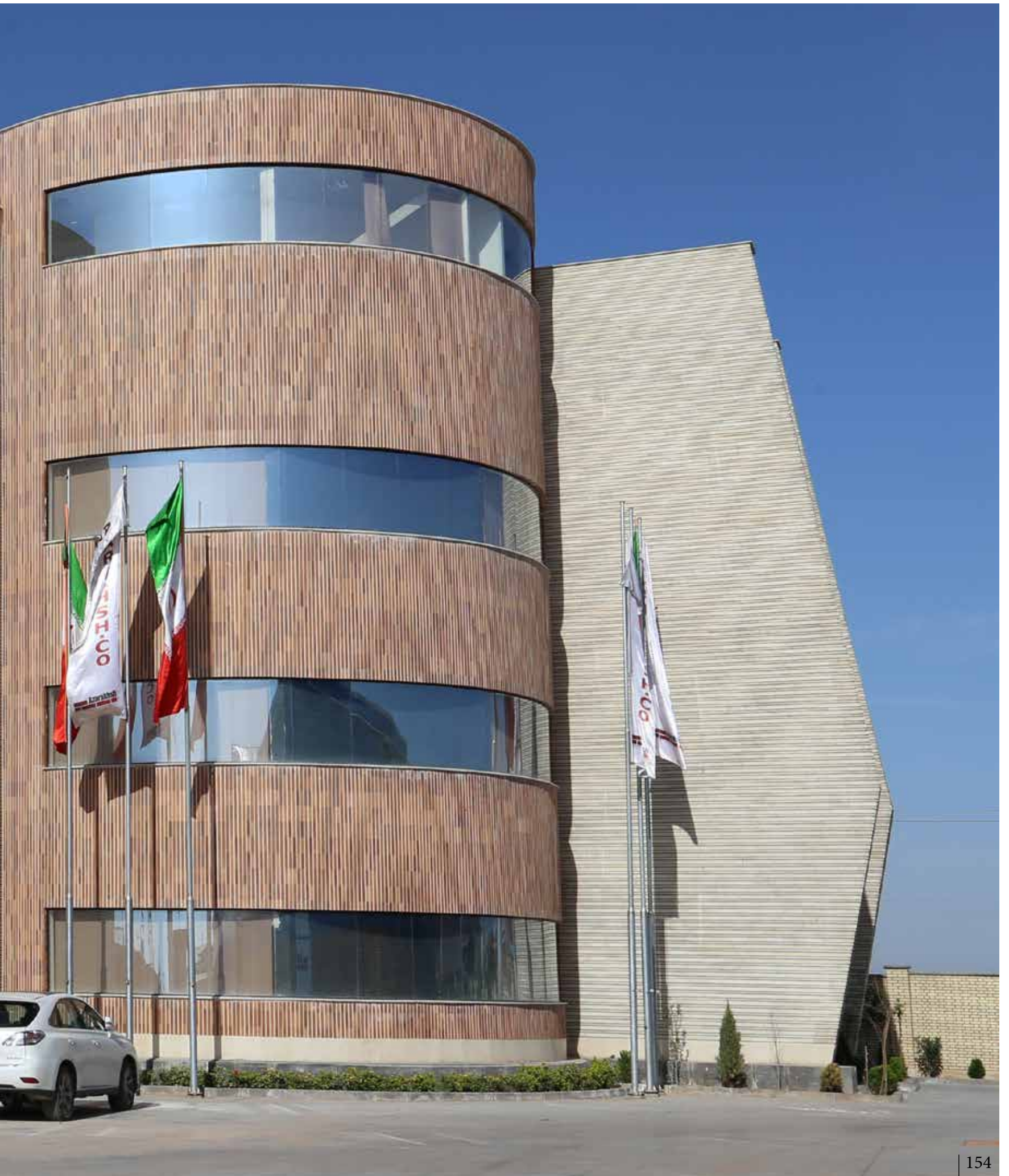






# A facade that looks both natural and robust





# STRONG AND DELICATE AT THE SAME TIME





#### **A HOUSE COMPLETELY MADE OF BRICKS IS A PIGGY BANK**

Brick walls are ideal for modern and energy efficient buildings with new heating systems. These include for example, heat pumps, combined with floor heating and interior walls made of bricks; practical, technically well thought-out and promising solutions, whose costs soon pays for themselves.

The heavy interior walls contribute, through their thermal mass, to a constant temperature. Likewise, when the sun shines or it's cold, you can balance any temperature swings. It's quite useful, in respect to the modern building regulations, which specify that indoor heat should be obtained through a low, but constant temperature.

In the summer, the demand for coolness and ventilation is reduced, thanks to the solid walls. The excess heat has become a luxury problem of energy-efficient houses. Brick-built walls offer a constant, pleasant temperature, also noticeable in energy consumption.



## The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East

Exclusive Properties of Azarakhsh Bricks One of the most important properties is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these Bricks become cool in summer and warm in winter since it does not let the energy be lost.







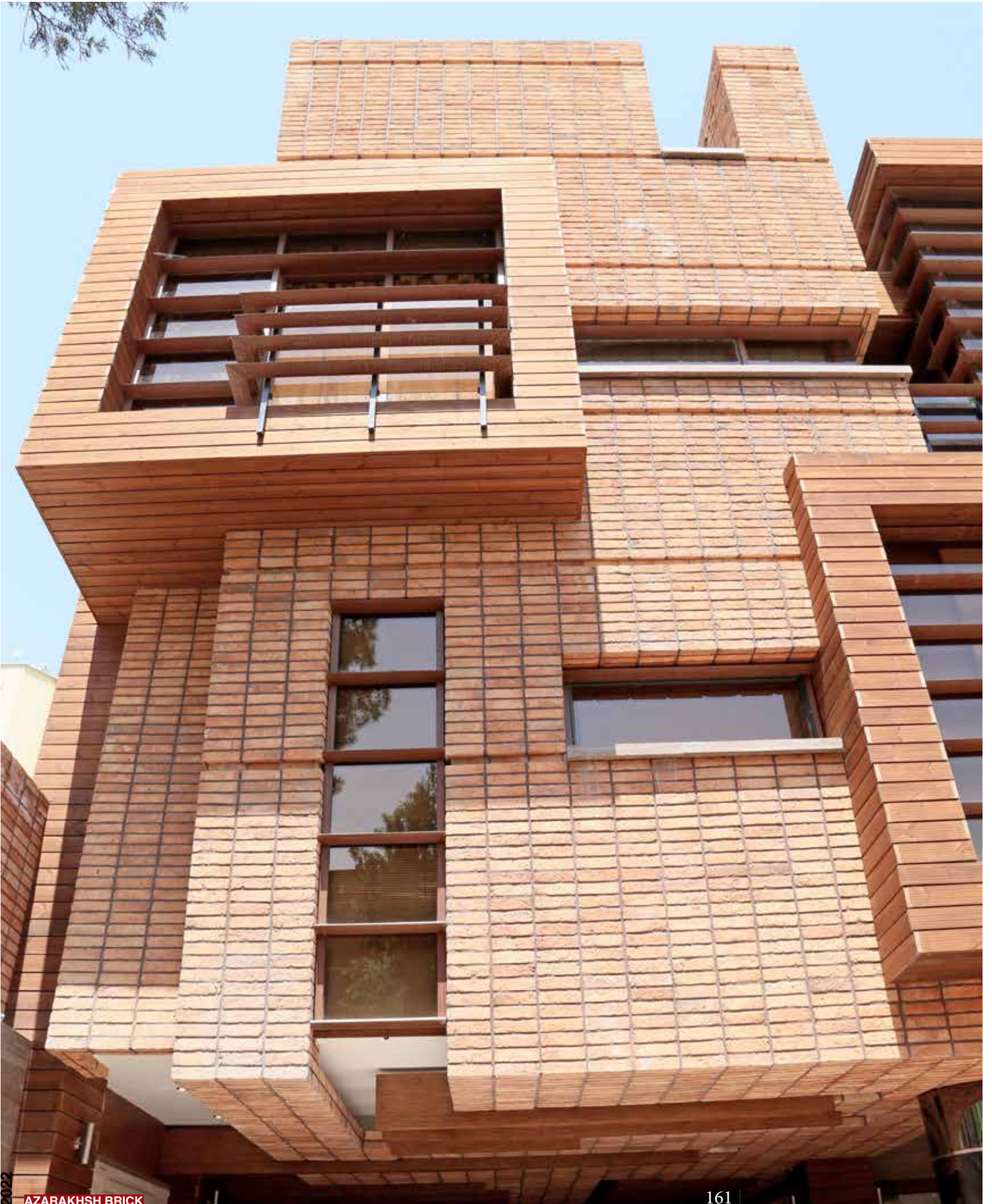
## COLOR RANGE

A CHOICE OF CONTEMPORARY COLOURS FOR COMPLETE CREATIVE FREEDOM.

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# HIGH ARCHITECTURAL QUALITY



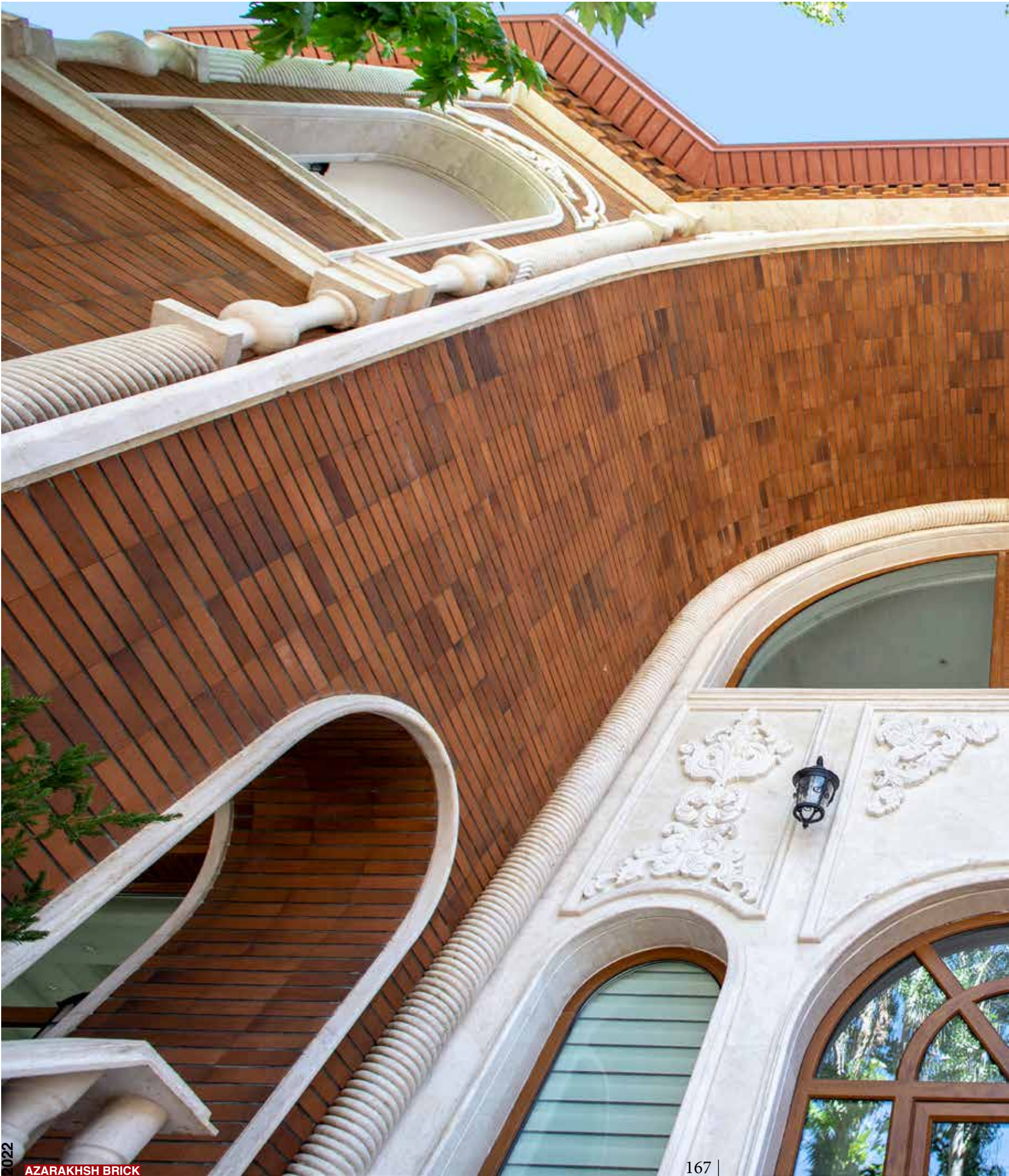




## PRECIOUS BRICKS FOR FACADE

Azarakhsh brick facade gives beauty and delight to the appearance and ultimately is a suitable view for our building. Azarakhsh facade firebrick plays the role of heat and cold resistant that prevents waste of energy produced by heat and cold systems. Depending on the material color, and exposure surface it reflex the sun heat on summers and vice versa in winter.







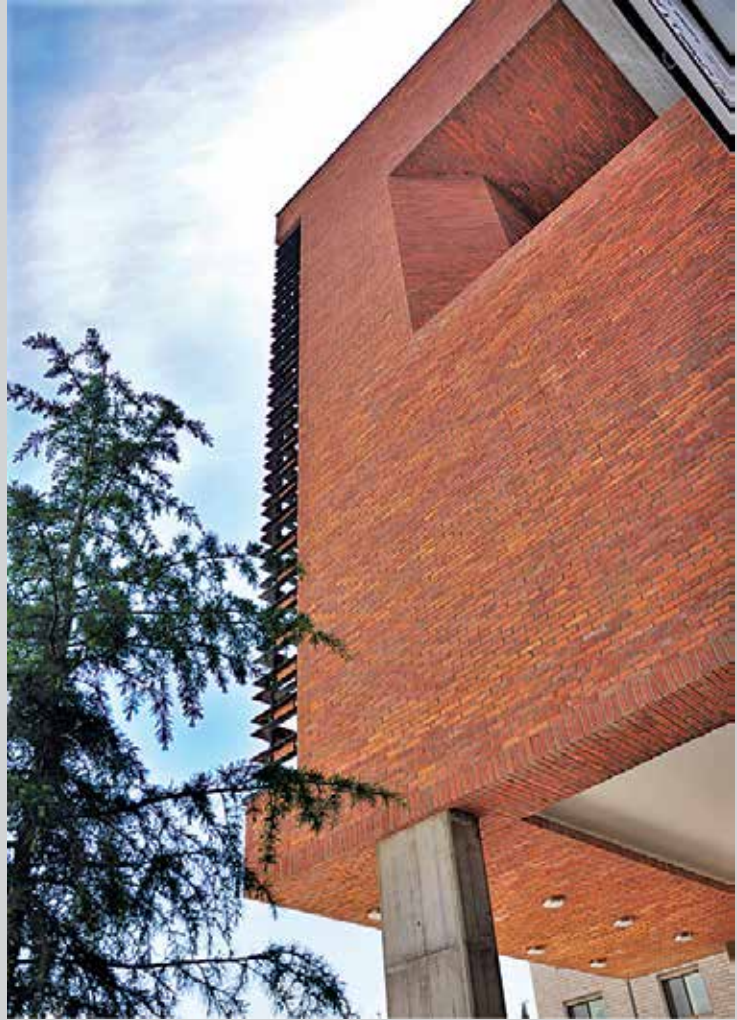








A member of Brick Industry Association of U.S.A



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# PRECIOUS BRICKS FOR FACADE





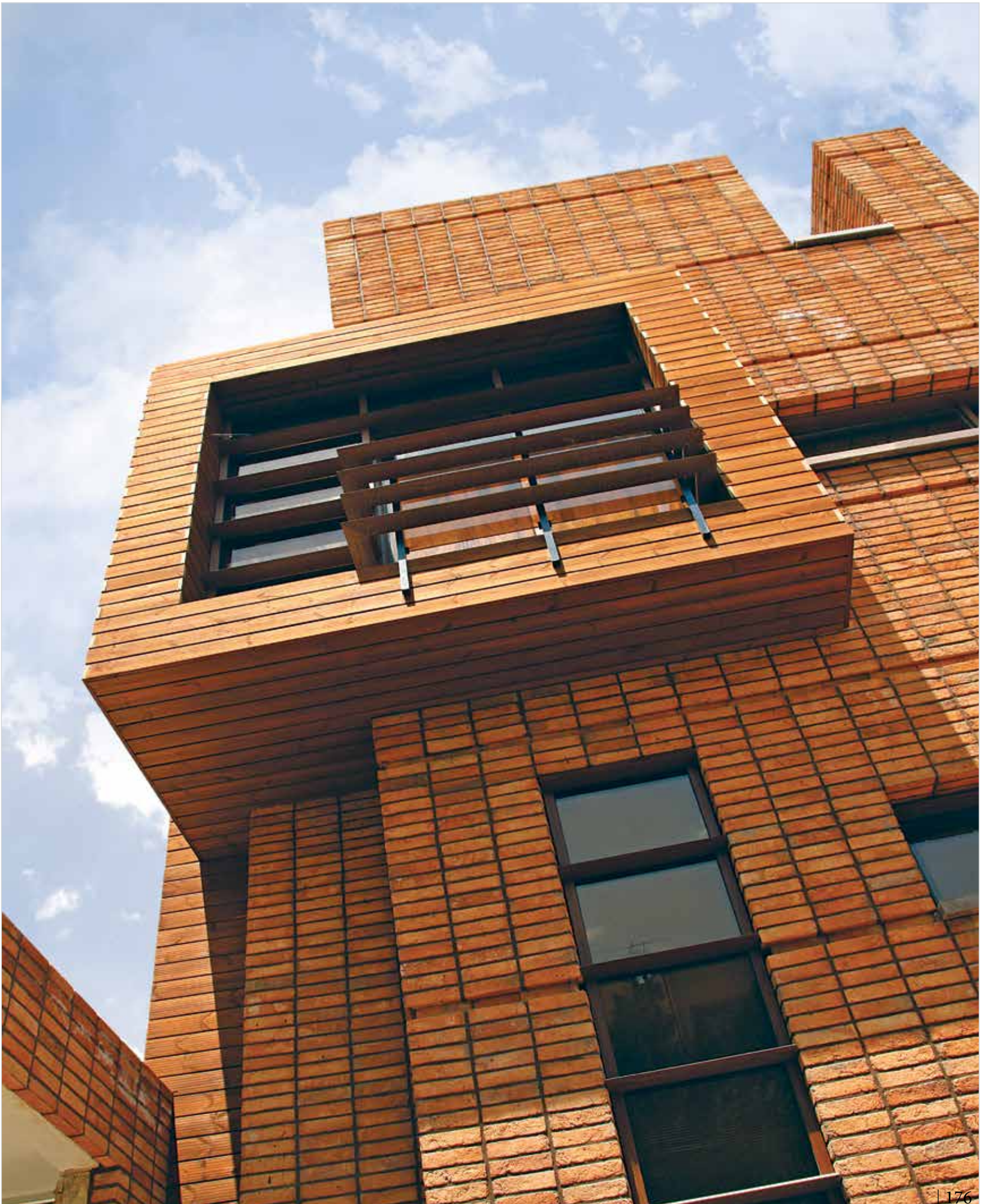
# A SENSE OF BALANCE

The key to a happy and successful society is a philosophy that places wellness at the heart of everything



The choice for the right building materials is a fundamental decision. It is therefore essential that we choose sustainable and ecologically sound products. A home is only truly sustainable when it has been built and decorated with sustainable materials and these materials have also been produced in a sustainable manner. Bricks and brick slips are a very good choice. After all, brick is a natural, high-quality, user-and maintenance-friendly product that is sustainable in all phases of its life cycle. Brick production serves a valuable social and economic role in society and does so with respect for the natural environment and surroundings.







# Creating Rooftop Environments



**OUR REAL FIREBRICK SLIPS ARE  
INDUSTRY INSPIRED.**

Our product range covers everything from contemporary, rustic, elegant to casual, modern, flooring etc. Here at brick we manufacture products that are supplied to some of the biggest companies in the world.





## EXCEPTIONAL PROPERTIES OF AZARAKHSH FIREBRICK



One of the most important properties of **Azarakhsh Firebricks** is their thermal masses. In fact, due to their high densities, they preserve heat and free such heat gradually. In other words, houses constructed with these **Bricks** become cool in summer and warm in winter since it does not let the energy be lost. Of the other properties of our **Bricks**, diversity of color may be exemplified. This color originates from color-making elements in mineral compounds. In addition, high temperature baking manifests the vast colors after production of Refractory **Bricks**. These **Bricks** will then be constant from the view point of color against sunlight. All **Bricks** are composed of naturally-occurring materials and they all have organic compounds. Presence of these compounds in **Bricks** result in efflorescence and reduces the beauty of facade. This phenomenon is more tangible in clayey **Bricks**. The organic compounds of the produced **brick** are totally ruined in temperature of above 1100 °C. As a result, when these compounds are ruined, no efflorescence occurs. For this reason, results of efflorescence tests are very slight due to above mentioned issue.

یکی از ویژگی‌های مهم استثنایی آجر نسوز آذرخش خاصیت توده گرمایی آن است. به این معنا که این آجر به دلیل داشتن دانسیته بالا، گرما را در خود ذخیره کرده و آهسته و آرام آن را آزاد می‌کند. این خاصیت سبب می‌شود در ماههای گرم سال، خانه‌های آجری خنک و در فصل سرد زمستان، دیوارهای آجری گرم مانده و مانع هدر رفتن انرژی و گرما شود. از دیگر ویژگی‌های آجر نسوز آذرخش تنوع رنگ در آجرها است که علت آن وجود عناصر رنگ ساز در مواد معدنی و پخت در درجه حرارت بالا است که خود را پس از فرایند تولید در محصول آشکار و نمایان می‌سازد. این خاصیت باعث پدید آمدن تنوع رنگ بسیار بالا شده و سبب می‌شود آجرهای نسوز تحت تأثیر اشعه‌های نور خورشید تغییر رنگ نداده و جذابیت نمای ساختمان ماندگار شود و هرگز حالت رنگ پریدگی در آن ایجاد نشود. تمام آجرها از مواد طبیعی تشکیل شده و مواد معدنی طبیعی دارای عناصر آلی هستند. این عناصر بر اثر نفوذ رطوبت در سطح آجر، سبب شوره زدگی شده و از زیبایی کار در نمای ساختمان می‌کاهد. این مسئله در تمامی آجرهای رسی محسوس و قابل مشاهده است.

عناصر آلی موجود در مواد معدنی پس از رسیدن به دمایی بیش از ۱۱۰۰ درجه سانتیگراد کاملاً از بین رفته و مانع از شوره زدگی در سطح آجر می‌شود که این عناصر در فرایند تولید آجر نسوز آذرخش به پایین‌ترین حد ممکن رسیده و در نتیجه آزمایش شوره زدگی در این نوع آجرها در حد صفر خواهد بود.



The choice for the right building materials is a fundamental decision. It is therefore essential that we choose sustainable and ecologically sound products. A home is only truly sustainable when it has been built and decorated with sustainable materials and these materials have also been produced in a sustainable manner.







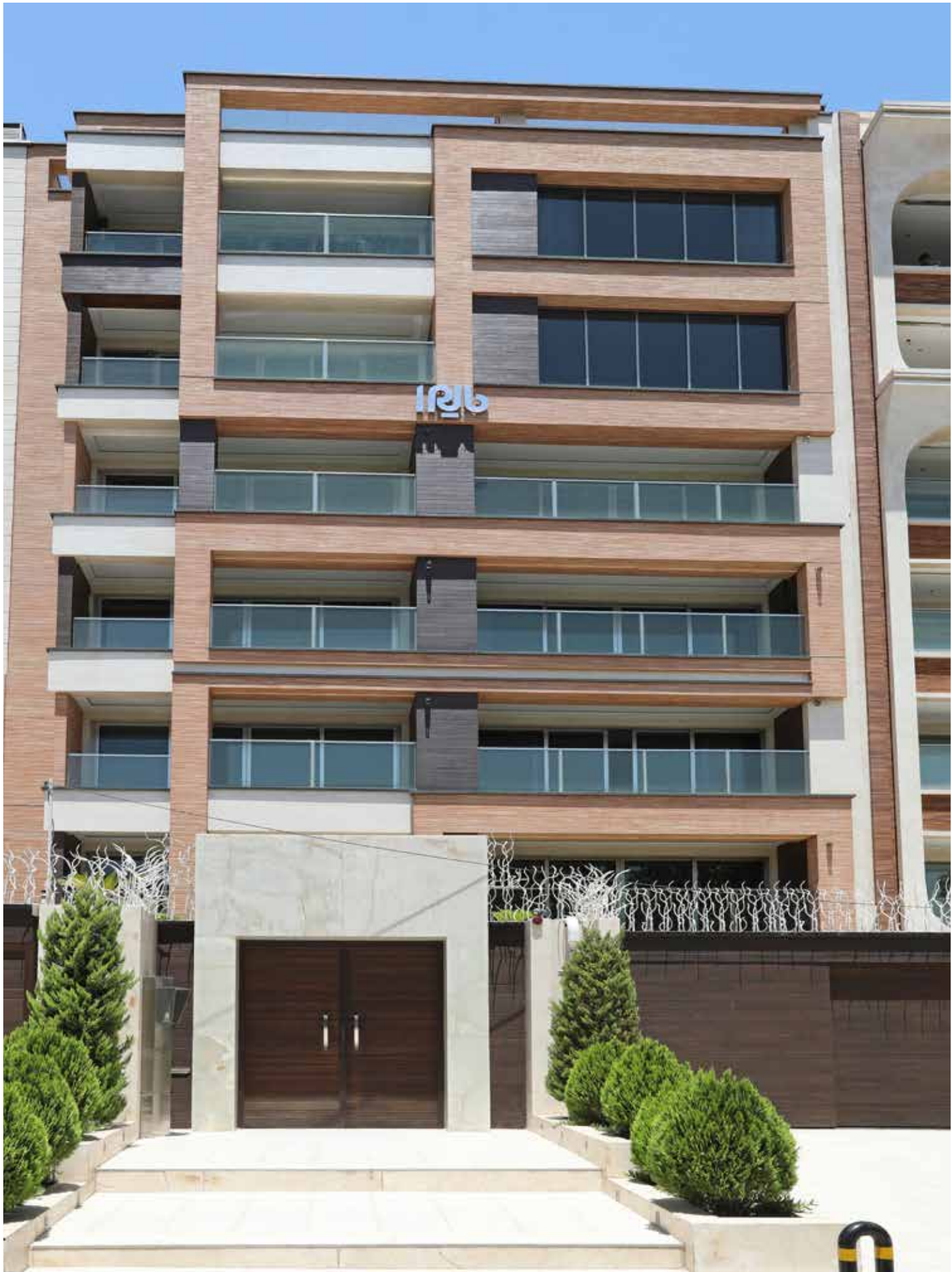
AT AZARAKHSH

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QUALITY  
**HONESTY**  
ACE VALUE  
**EXCELENT DESIGNS**  
GREAT CUSTOMER CARE









All construction materials react to temperature and moisture change and their volume consequently change. Pressures due to such volume changes result in adverse phenomena in buildings. For this reason, some actions should be taken to reduce these differential changes (movements). of course, expansion joint systems may reduce crack potential and the appertaining problems to some extent. However, accurate prediction of these changes is very difficult for most of the buildings since they encounter the designers and executors with some problems at the conclusion or post-construction stages. In general, these changes depend on the properties of construction materials. One of the destructive factors which jeopardize construction materials is moisture. This factor most threatens brick veneer rather than other construction materials since they dilate gradually. This dilation is very considerable and irreversible. Amount of destruction for any Brick depends on to its raw materials and the temperature of baking. clay bricks cannot be used for facade ornamentation in places with high moisture or drastic temperature change between day and night because of mentioned problem. Due to having some special combination of compounds such as  $Al_2O_3$  and  $SiO_2$  as well as calcinations of raw materials in high temperatures prior to molding and during baking, Azarakhsh Bricks are produced with considerable coherence rather than other construction materials. These products are unchangeable under any climatic conditions, temperature and moisture fluctuation. Therefore, its durability is tens of times higher than ordinary Bricks due to resistance to abrasion and erosion.

A Brick-made building is a part of nature. Harmony not only disturbs it but also grants its scenic color and form. This type of building is always preferred and advances through passage of time.

### **Advantages of AZARAKHSH Brick Veneer**

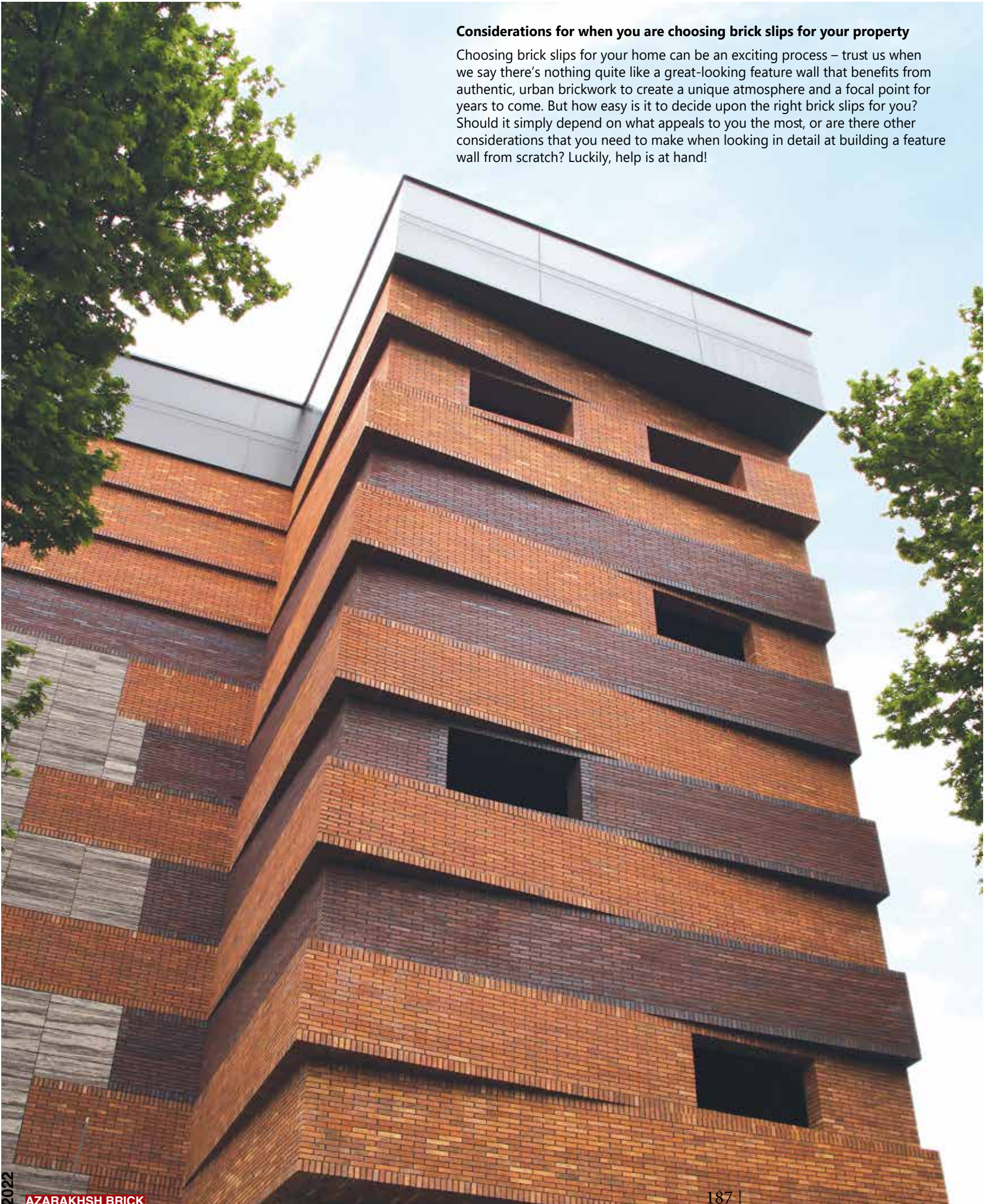
Following are the advantages of brick veneer:

1. It is relatively easy to install and can be completed in shorter span of time.
2. Less man-force or labour is required.
3. The brick veneer walls have less weight in comparison to different masonries. This reduces structural loading due to which economies expended on structural & foundation support is saved.
4. Cavities on brick veneer wall can act as an insulating agent.
5. It looks fancy, needs little maintenance. It does not need painting either.
6. They are durable and fireproof.

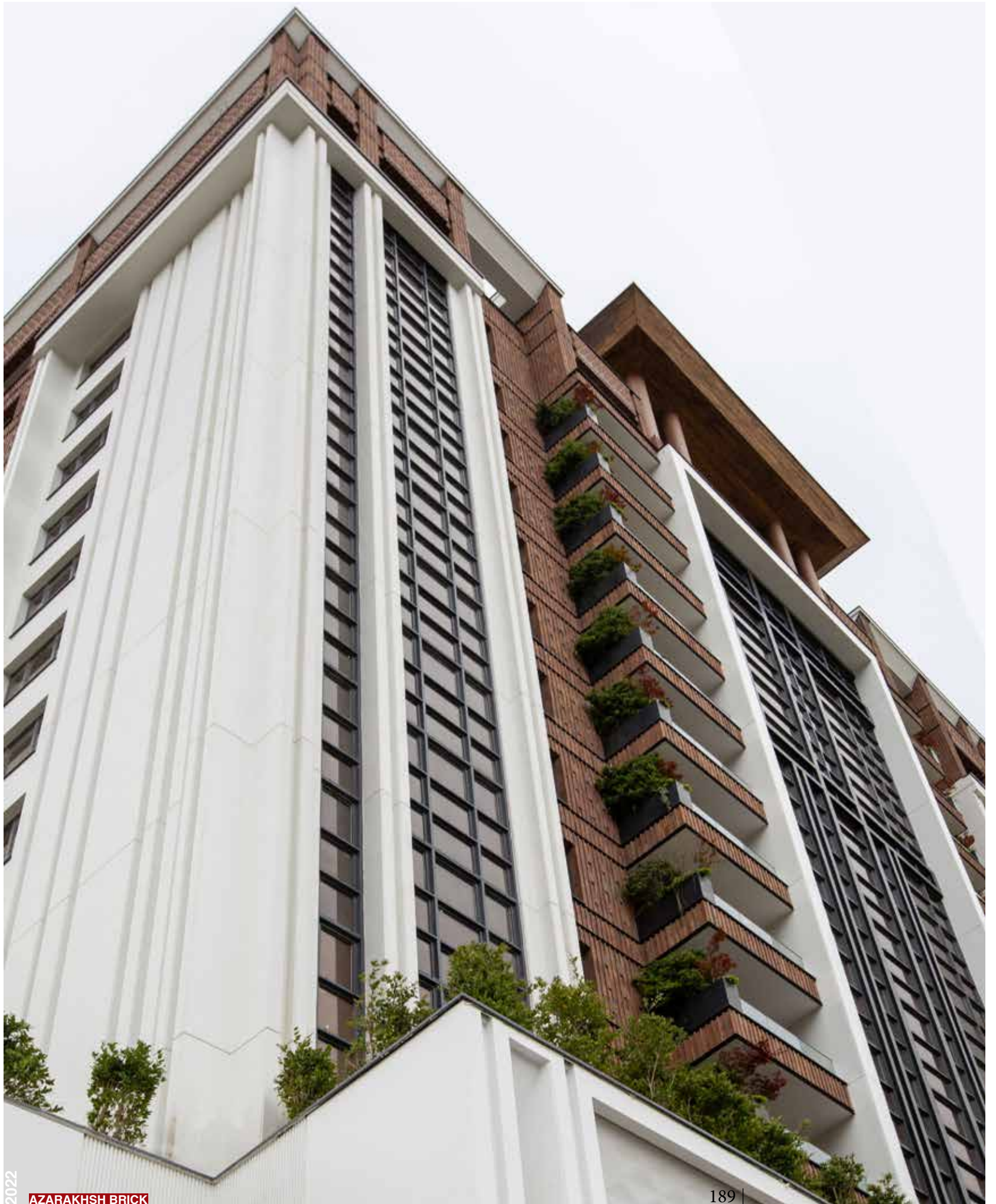


### Considerations for when you are choosing brick slips for your property

Choosing brick slips for your home can be an exciting process – trust us when we say there's nothing quite like a great-looking feature wall that benefits from authentic, urban brickwork to create a unique atmosphere and a focal point for years to come. But how easy is it to decide upon the right brick slips for you? Should it simply depend on what appeals to you the most, or are there other considerations that you need to make when looking in detail at building a feature wall from scratch? Luckily, help is at hand!











# POWERFUL ELEGANCE

Besides comfort, a building made of bricks also has some financial advantages. Houses made entirely out of brickwork cost less in the long run, because they need less energy for heating. Research has proved that bricks for internal walls are best suited to households with passive and lower energy consumption, as the walls efficiently support the house's heating system and also absorb humidity that cannot escape through efficient climate shielding.

Finally, it is also very beneficial that houses completely made of bricks are often more attractive and attract higher values, should you want to sell them one day. This is down to, among other factors, the excellent properties relating to energy consumption and indoor climate, and in addition, houses completely made of bricks are already associated with better quality.





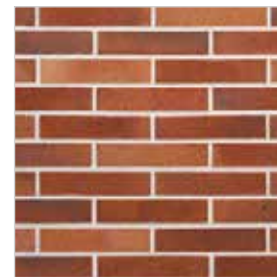




## OUR REAL FIREBRICK SLIPS ARE INDUSTRY INSPIRED.

Our product range covers everything from contemporary, rustic, elegant to casual, modern, flooring etc.

Here at brick we manufacture products that are supplied to some of the biggest companies in the world.

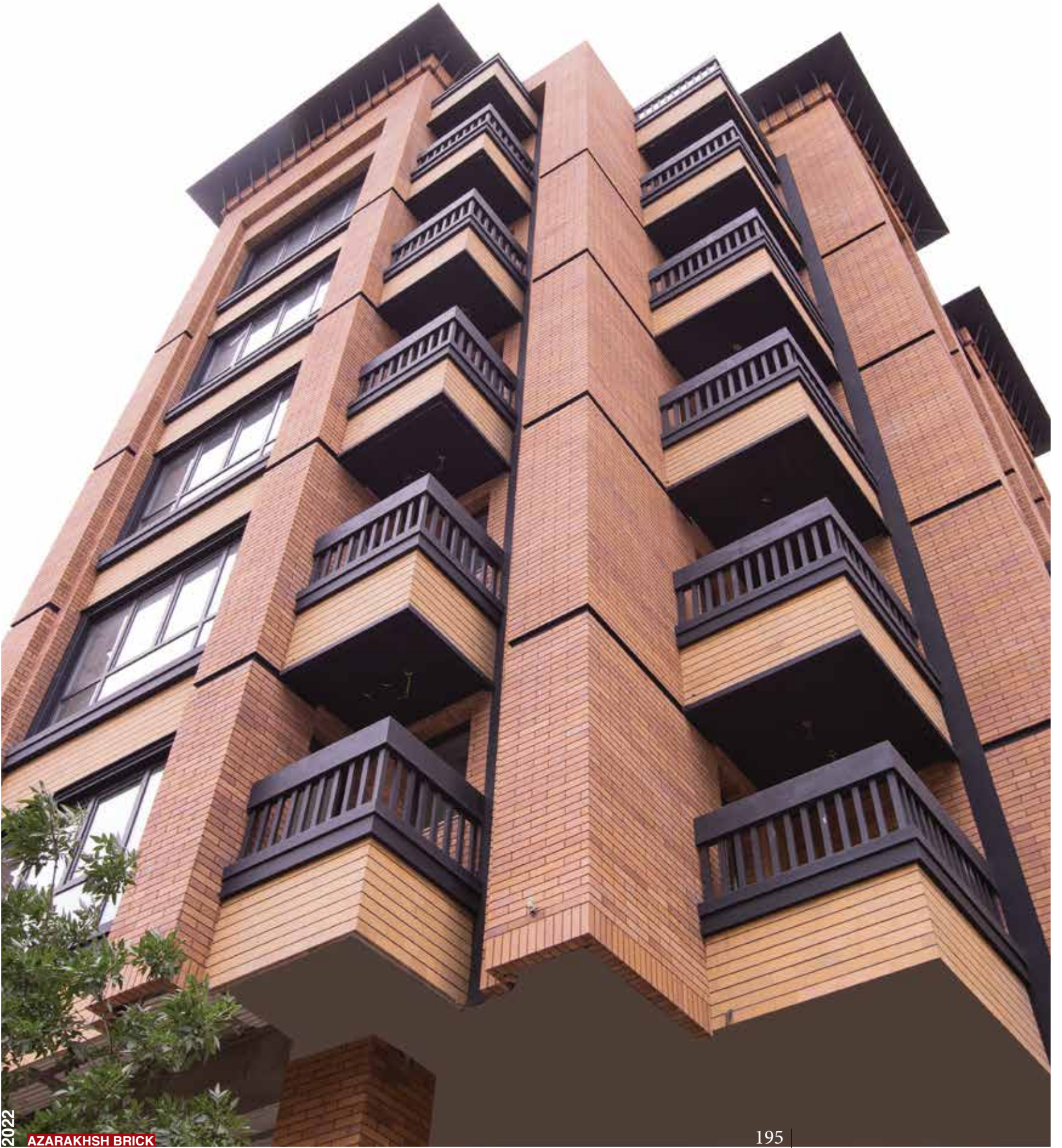


### AP32

Brick Slip Name ► American Design

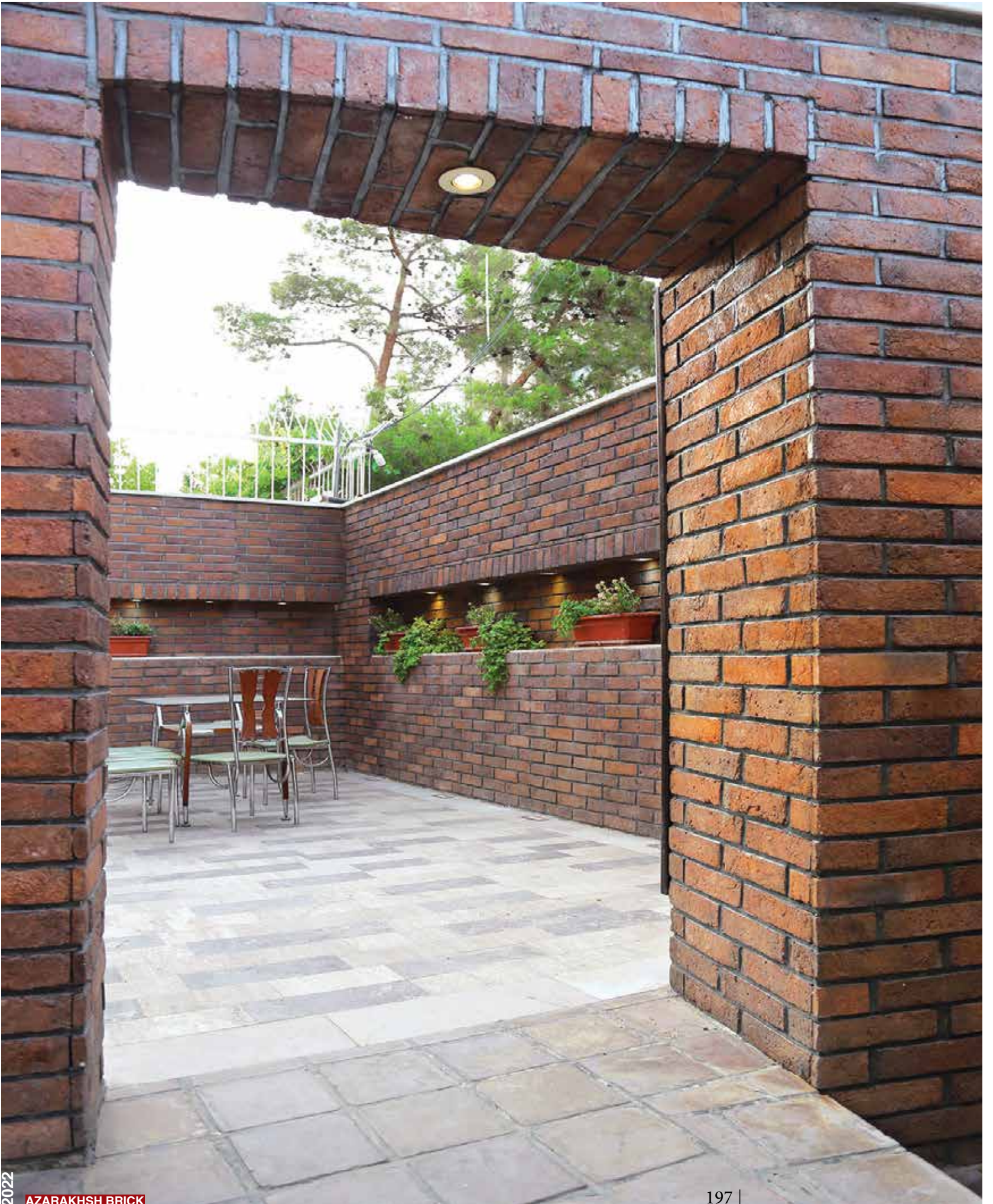
Dimension ► 260×55×27 mm

Qty/M<sup>2</sup> ► 60 pcs.



# ECO FRIENDLY BRICK







# HIGH LIVING STANDARD

All construction materials react to temperature and moisture change and their volume consequently change. Pressures due to such volume changes result in adverse phenomena in buildings. For this reason, some actions should be taken to reduce these differential changes (movements).of course, expansion joint systems may reduce crack potential and the appertaining problems to some extent. However, accurate prediction of these changes is very difficult for most of the buildings since they encounter the designers and executors with some problems at the conclusion or post-construction stages. In general, these changes depend on the properties of construction materials. One of the destructive factors which jeopardize construction materials is moisture. This factor most threatens brick veneer rather than other construction materials since they dilate gradually. This dilation is very considerable and irreversible. Amount of destruction for any Brick depends on to its raw materials and the temperature of baking. clay bricks cannot be used for facade ornamentation in places with high moisture or drastic temperature change between day and night because of mentioned problem. Due to having some special combination of compounds such as  $Al_2O_3$  and  $SiO_2$  as well as calcinations of raw materials in high temperatures prior to molding and during baking, Azarakhsh Bricks are produced with considerable coherence rather than other construction materials. These products are unchangeable under any climatic conditions, temperature and moisture fluctuation. Therefore, its durability is tens of times higher than ordinary Bricks due to resistance to abrasion and erosion.



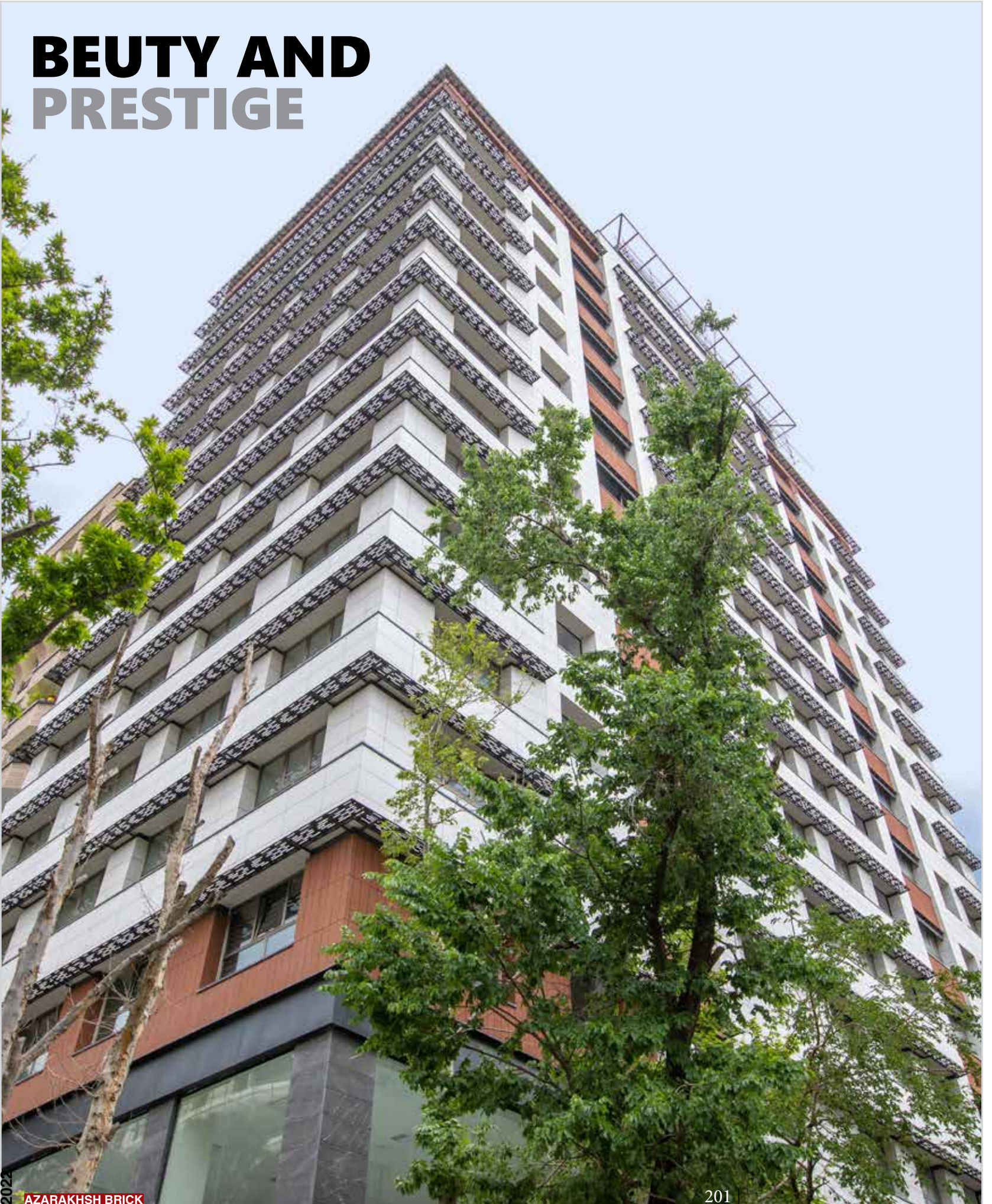


The choice for the right building materials is a fundamental decision. It is therefore essential that we choose sustainable and ecologically sound products. A home is only truly sustainable when it has been built and decorated with sustainable materials and these materials have also been produced in a sustainable manner. Bricks and brick slips are a very good choice. After all, brick is a natural, high-quality, user- and maintenance-friendly product that is sustainable in all phases of its life cycle. Brick production serves a valuable social and economic role in society and does so with respect for the natural environment and surroundings.





# BEUTY AND PRESTIGE





A facade that looks both natural and robust

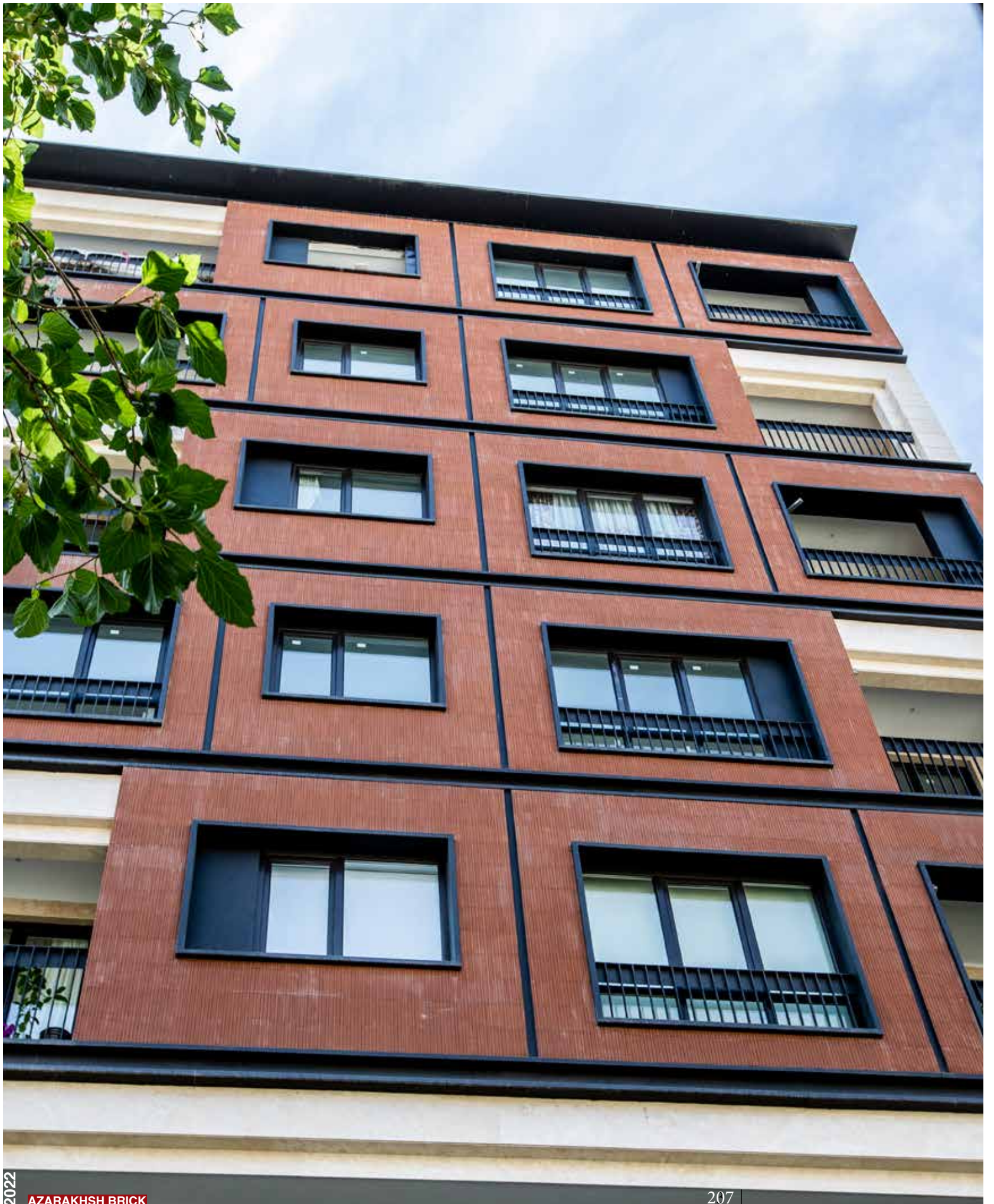






**Azarakhsh** brick facade gives beauty and delight to the appearance and ultimately is a suitable view for our building. **Azarakhsh** facade firebrick plays the role of heat and cold resistance that prevents waste of energy produced by heat and cold systems. Depending on the material color, and exposure surface it reflex the sun heat on summers and vice versa in winter.





For cleaning Azarakhsh Brick veneer, Apply the cleaning Solution using a sponge or cloth or normal water or the paste of cleaning solution you have pre made on to the brick slips.

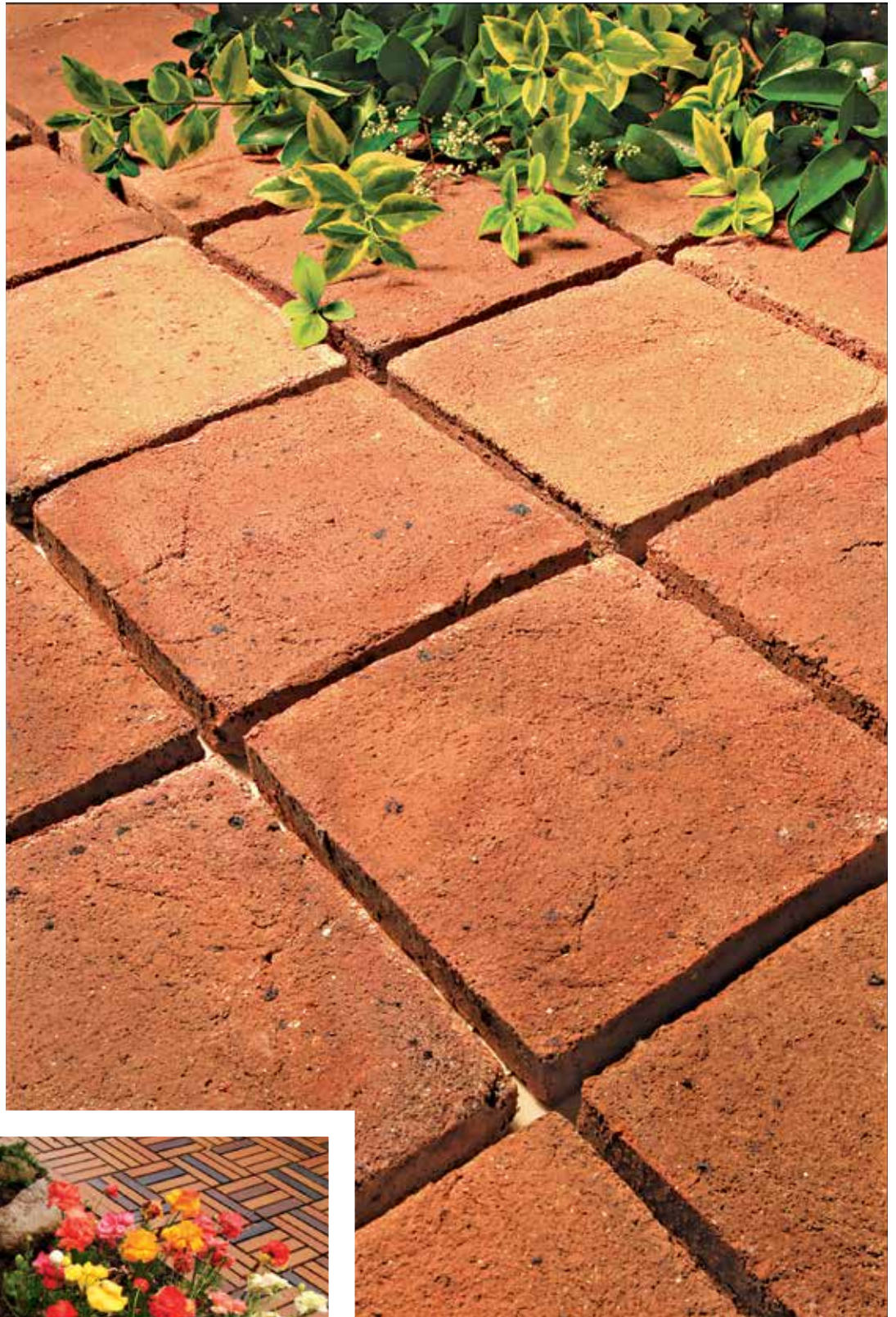
You will need for cleaning brick slips

1. Vacuum Cleaner.
2. Duster.
3. Wire brush.
4. Sponge/ cloth or rag.
5. Bucket.
6. Salt (Table salt)
7. Mild detergent or Washing up Liquid.

Can You Use The Fireplace With Azarakhsh Brick Slips On The Inside? Because our range of brick tiles are made out of refractory materials, they are highly heat resistant more than standard. This makes them perfect for use within a fireplace that is still used to heat the home (some people just have them as decoration and don't actually use them).

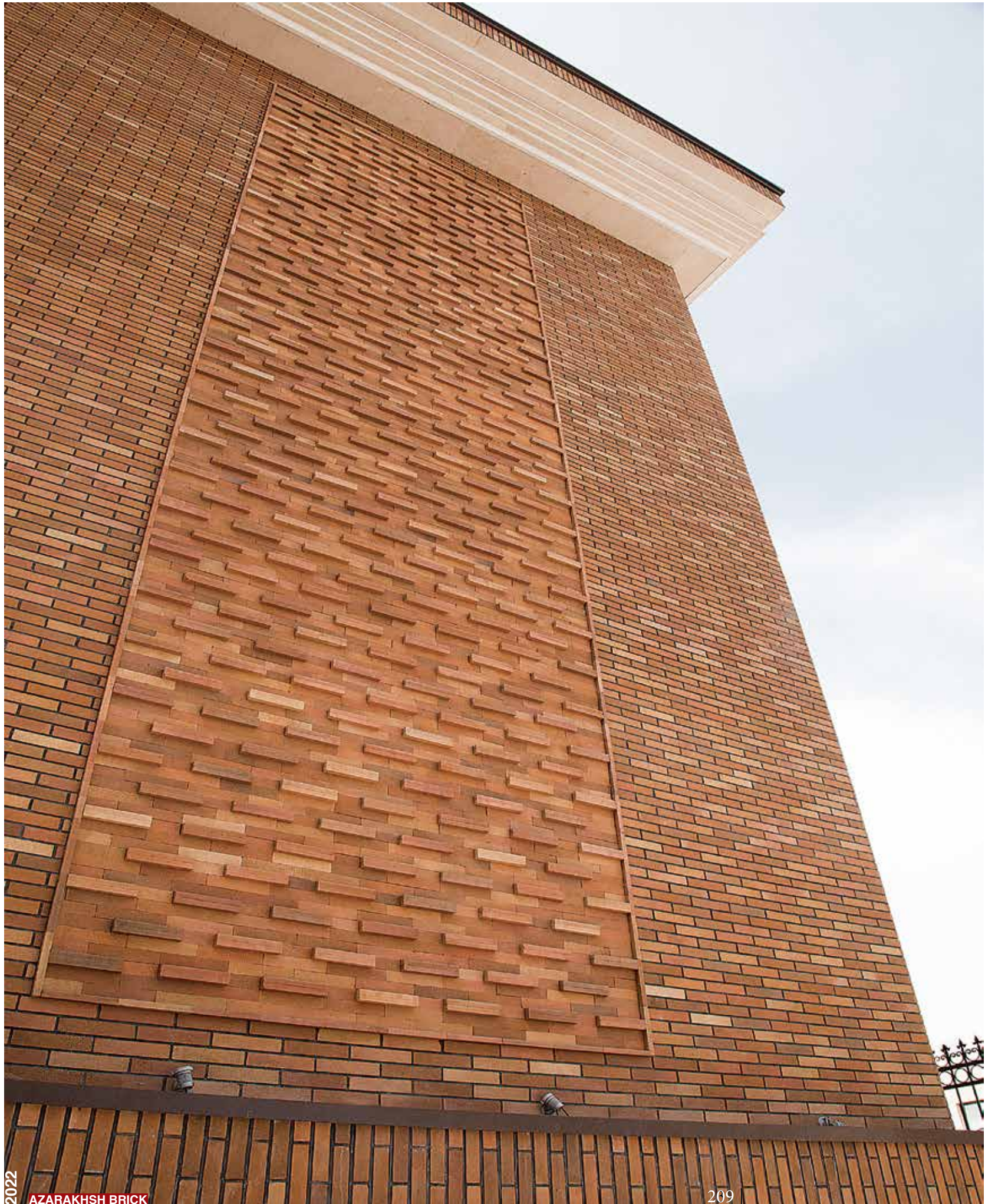
For installing Azarakhsh brick veneer

Once you're happy with the adhesive on the wall, you can start the exciting part - fixing brick slips to the wall! Grab a brick slip and gently (but firmly) press it into the adhesive. Continue along the row until it is complete. Make sure to use the spacers to ensure that a 10mm gap is maintained between the tiles.

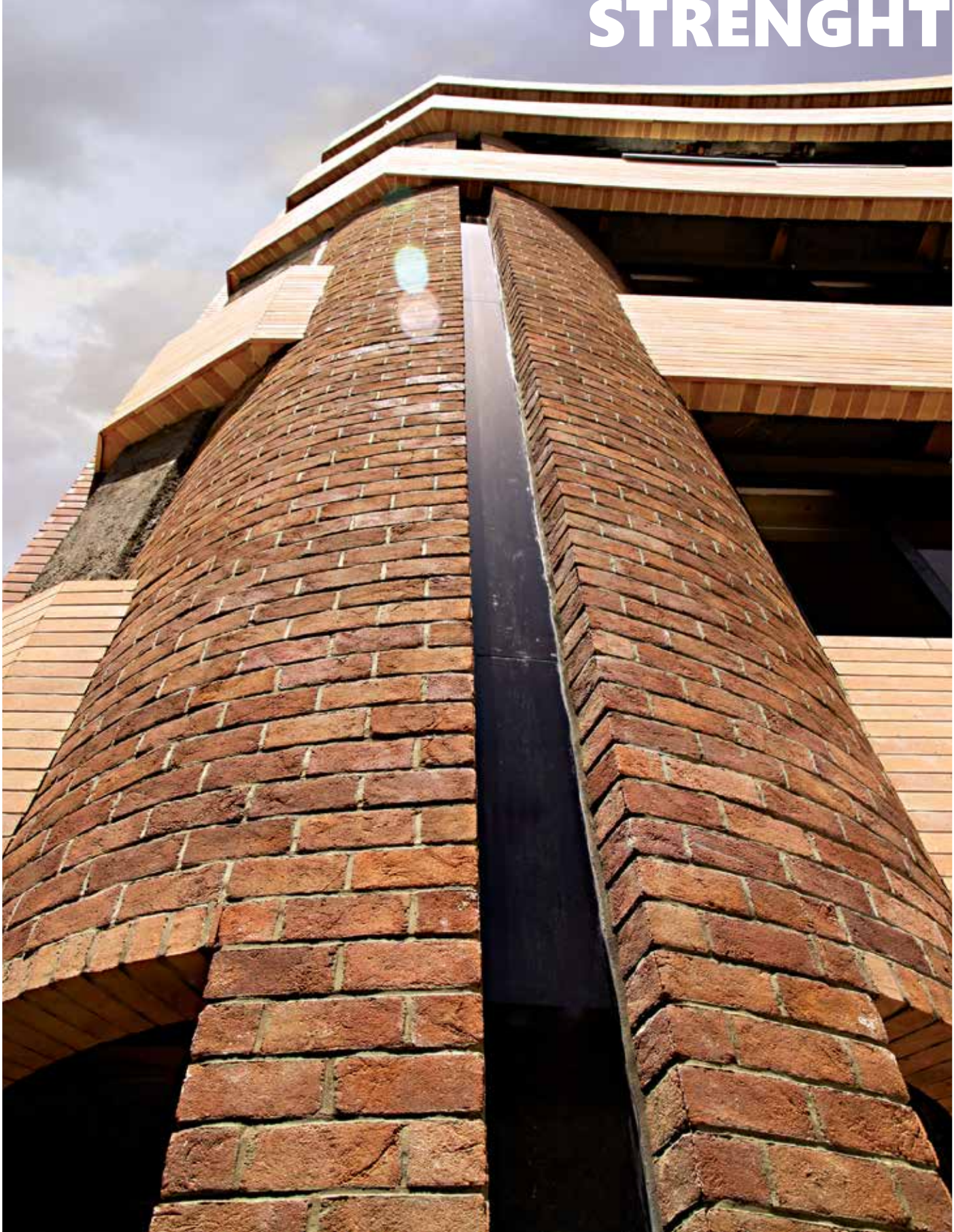


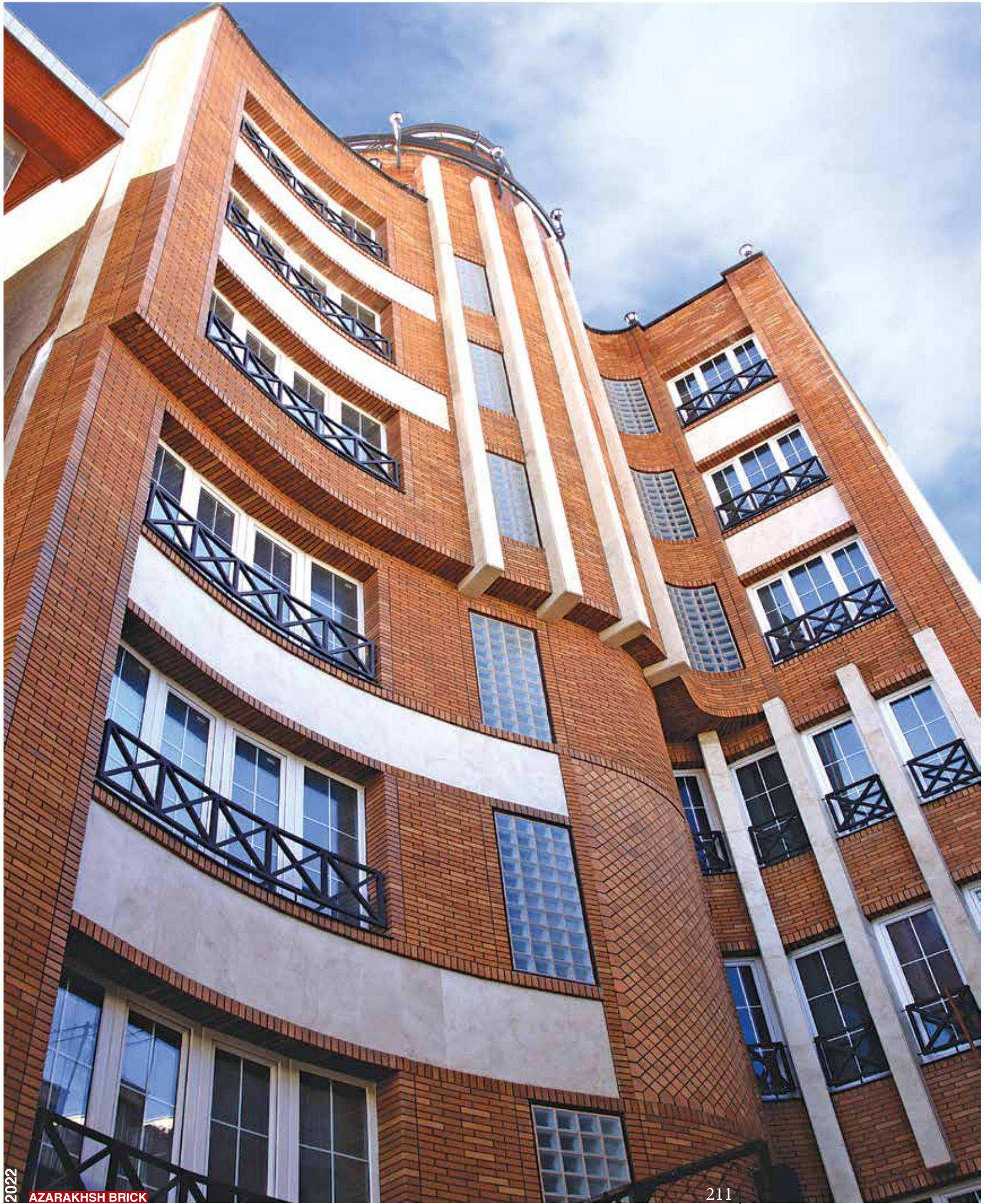
With an extensive range of brick slips for use in internal and external applications, together with a selection of quality-assured original products, and a choice of paver slips for internal floors, we lead the market when it comes to brick and paver slips. Whether you're working on commercial projects, looking to make home improvements or even interested in stocking our brick slips; whether you need brick slips for an internal or external wall, or paver slips for an internal and external floor, we'll have a solution that suits your needs





# PURE STRENGTH

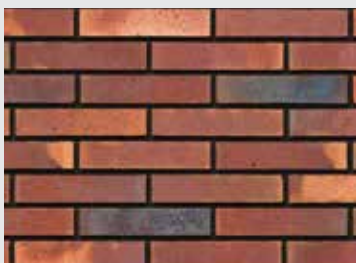




# Magical composition



AP41



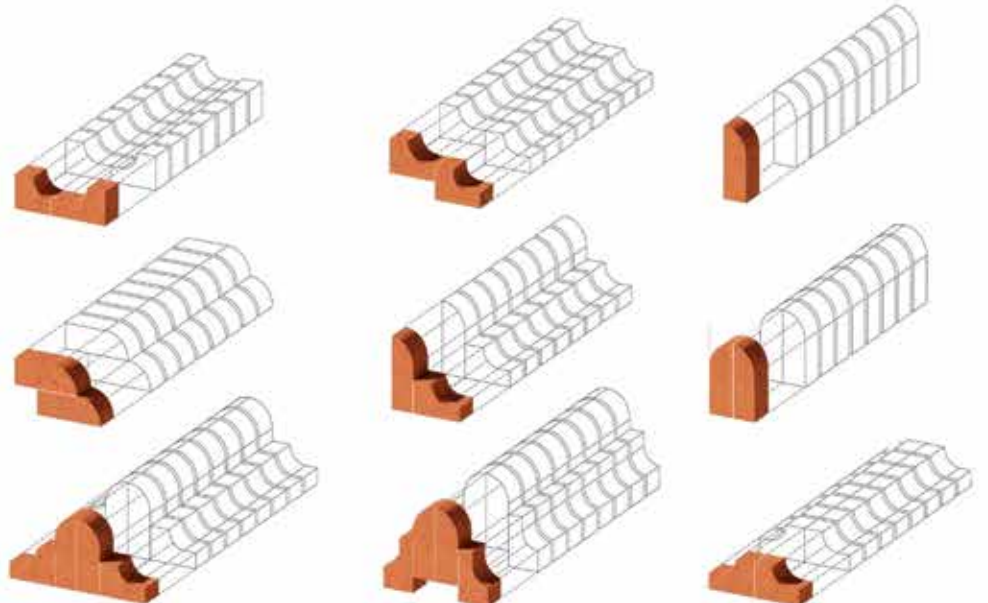
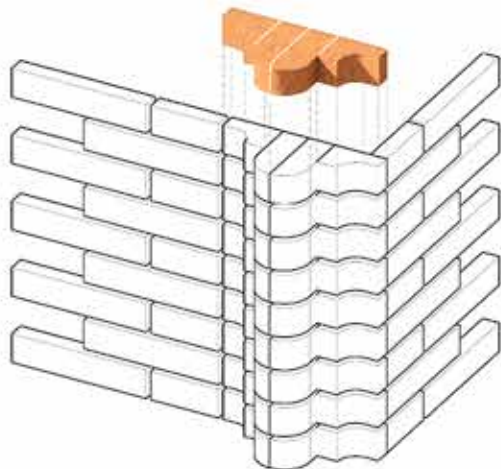
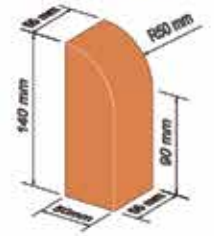
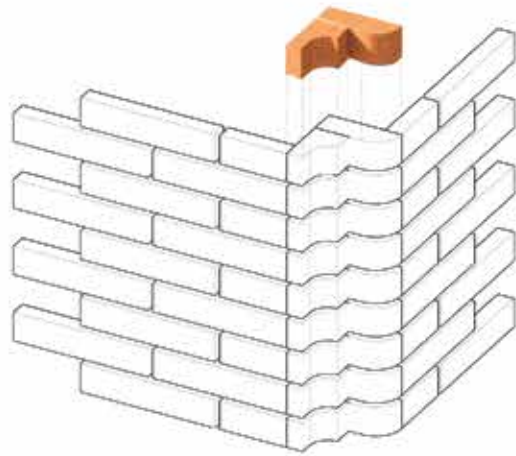
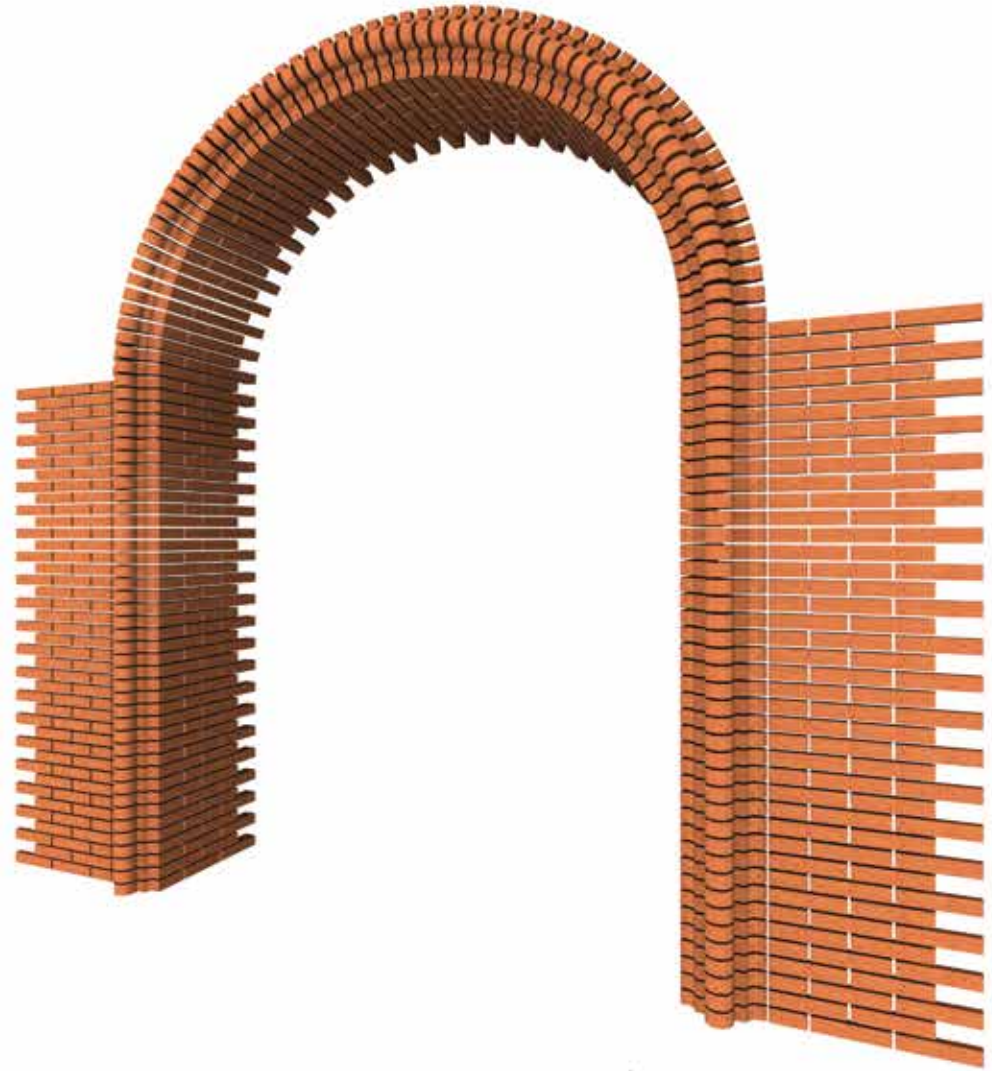
Dimensions ▶ 330 × 70 × 27 mm  
Qty/M<sup>2</sup> ▶ 37 pcs.

One of the effective factors for creating beautiful facades is contrasting different colors among articulations. Using dissimilar, complimenting or inharmonious colors creates attractive facades. Selecting light colors for articulation between **Bricks** with dark tonalities distinguishes the color difference. Reciprocally, selecting dark colors minimize the differences.

















Energy efficient is one of the most heavily used buzzwords in the important discussion on how to reduce greenhouse gases in the future and take further steps to counteract climate change.

**Energy**

The energy efficient house made from Brick optimizes the supply and utilization of energy through the use of renewable energy sources and minimal thermal losses.

**Economy**

The energy efficient Brick house combines low construction and energy costs.

**Ecology**

Thanks to renewable energy sources, such as solar and biomass, the e4 Brick house is climate – friendly and the clear winner in the co2 rankings.

**Emotion**

Diversity of architectural design, quality of life and a healthy indoor climate in no way conflict with the efficiency and environmental benefits offered by a Brick house.

Energy efficient is one of the most heavily used buzzwords in the important discussion on how to reduce greenhouse gases in the future and take further steps to counteract climate change.

The building industry, including the residential sector, plays an important role here it is responsible for a considerable share of total energy consumption and therefore greenhouse gas emissions. For this reason, Azarakhsh AG has worked with experienced experienced

experts in low-energy and passive house to develop a corresponding programme that reduces the ongoing heat and electricity costs of a building to the absolute minimum. Studies have shown that reasonably energy – optimized buildings actually have a lower primary energy demand – and therefore a better CO2 impact – than comparable hi-tech passive houses that rely on electrical energy.

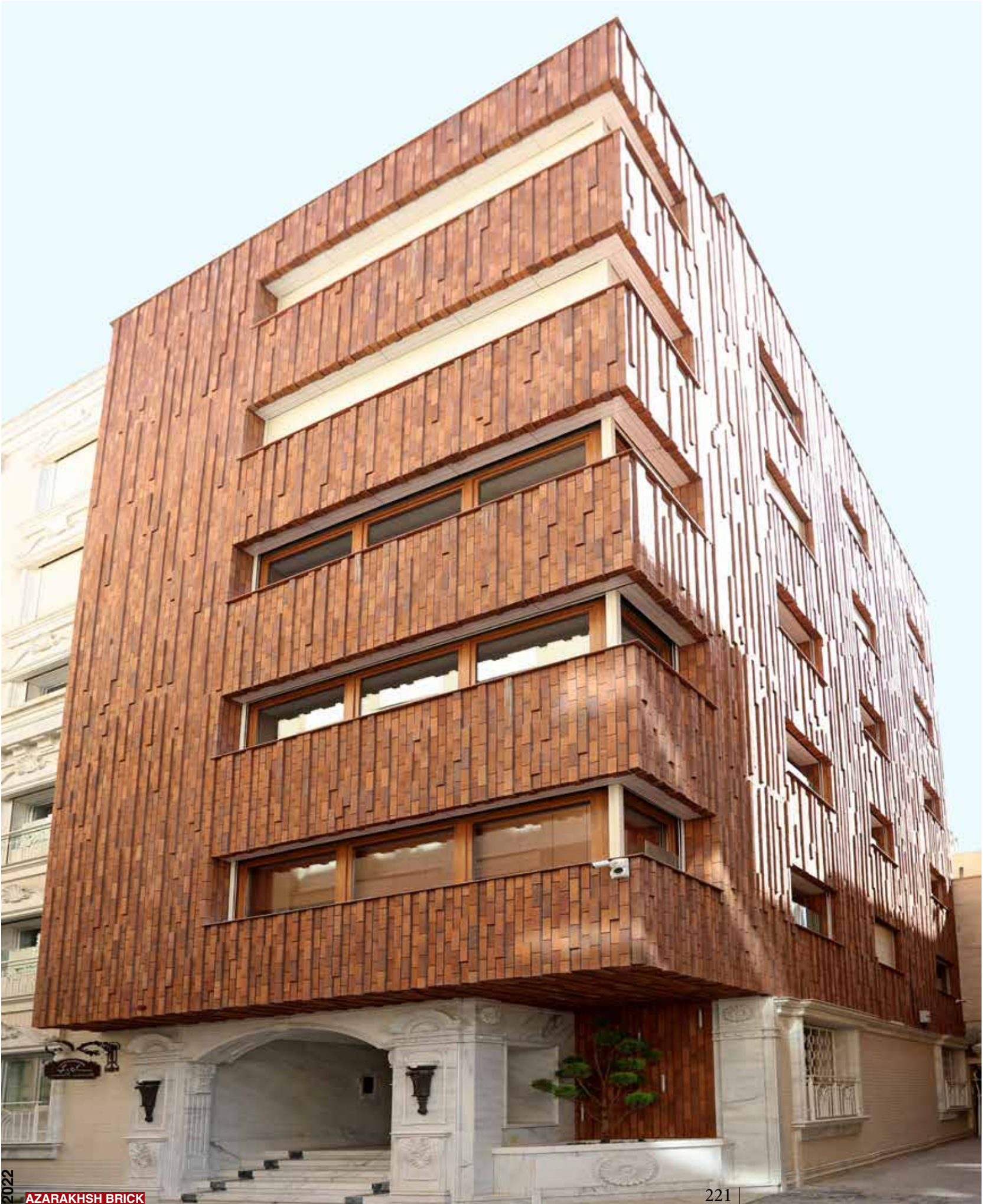
The e4 programme from Azarakhsh is based on four concepts: “energy efficiency”, “ecology”, “economy”, and “emotion”. A solid exterior envelope of optimised Bricks with vertical cavities filled with mineral insulation does more than achieve required insulation values. At the same time, it offers thermal mass and therefore a buffered, comfortable room climate. A switch from fossil energies to renewable ones, such as solar energy and biomass, rounds out the programme.

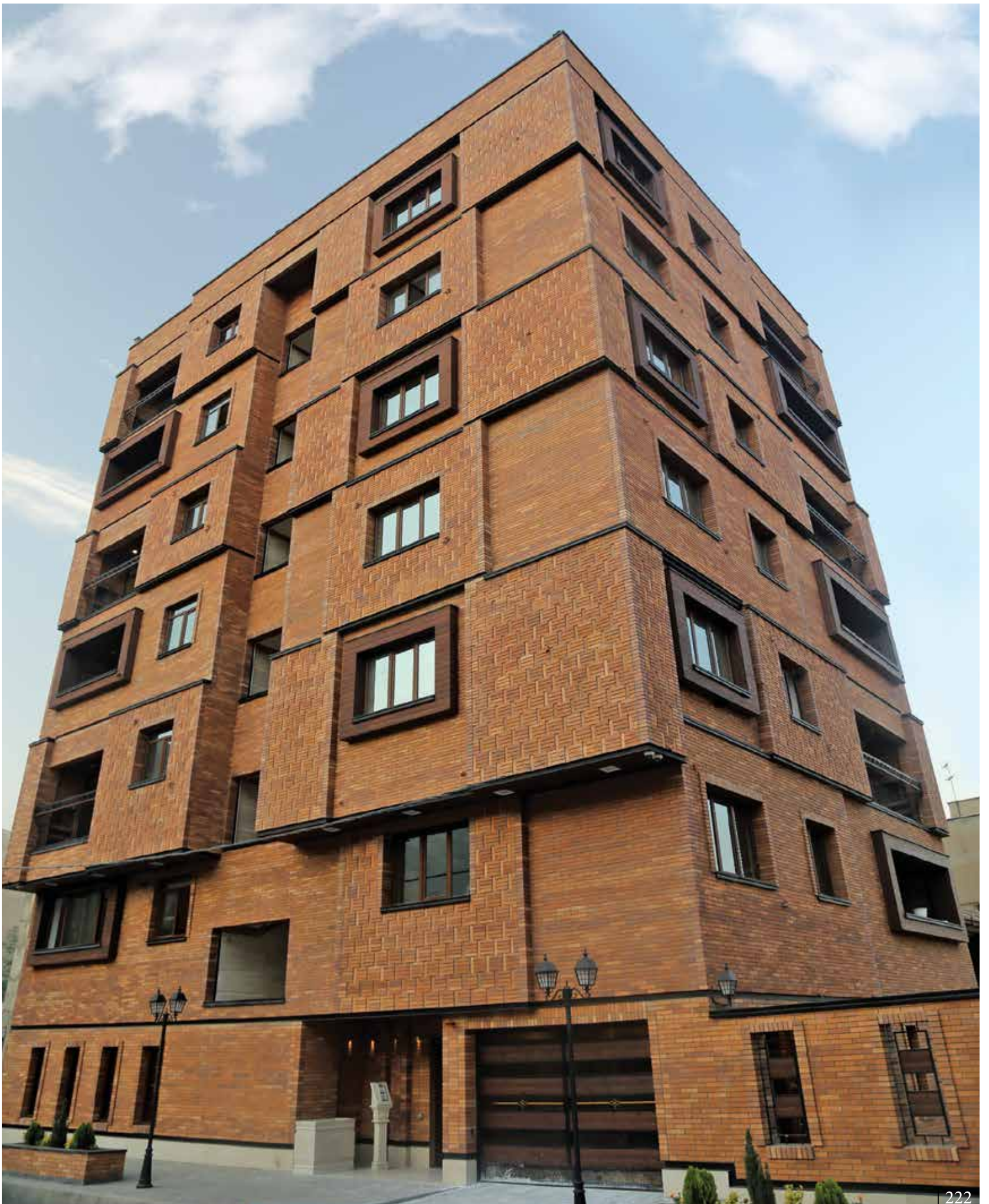
For manufacturing costs that are just 5 per cent higher, the ongoing energy costs are reduced to half and the CO2 emissions are cut to one-sixth. In other words, the e4 designation stands for buildings that clearly live up to the goal of environmental protection, without the need for complex technical solution and for relatively low levels of additional cost.

A facade that looks both natural and robust



Brick veneer is a non-structural layer of brick used in construction of buildings, placed at outer layer, generally backed by an air space. The materials used in brick masonry work and that in brick veneer are same, however, they differ in the construction technique used while placing bricks. In case of brick veneer, inner layer may be that of wood, metal or concrete. Before we move into the topic, it is necessary to understand the fine difference between Brick veneer and brick masonry work.





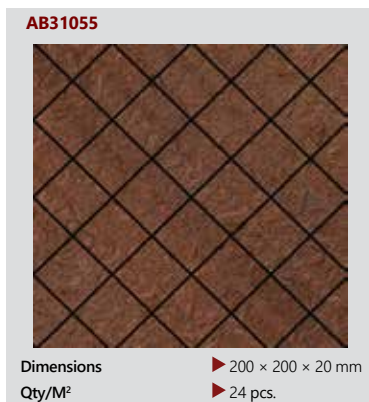
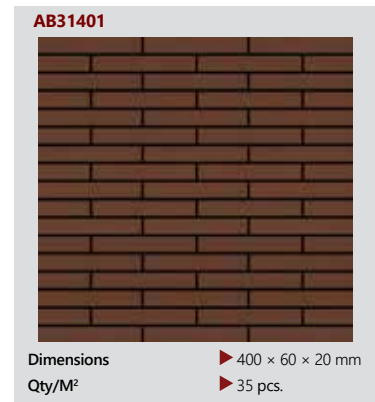
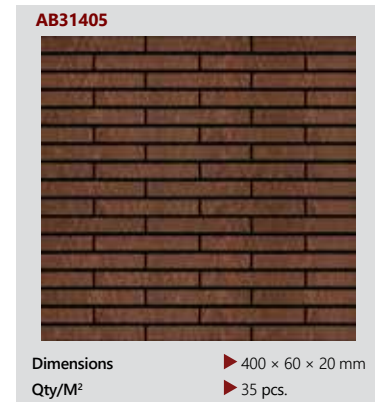
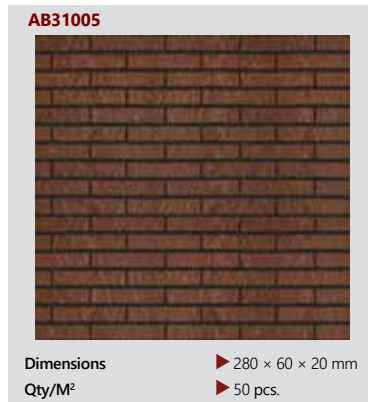


**AP29**

Dimensions ▶ 260 × 55 × 27 mm  
Qty/M<sup>2</sup> ▶ 60 pcs.



# Dark Brown Brick









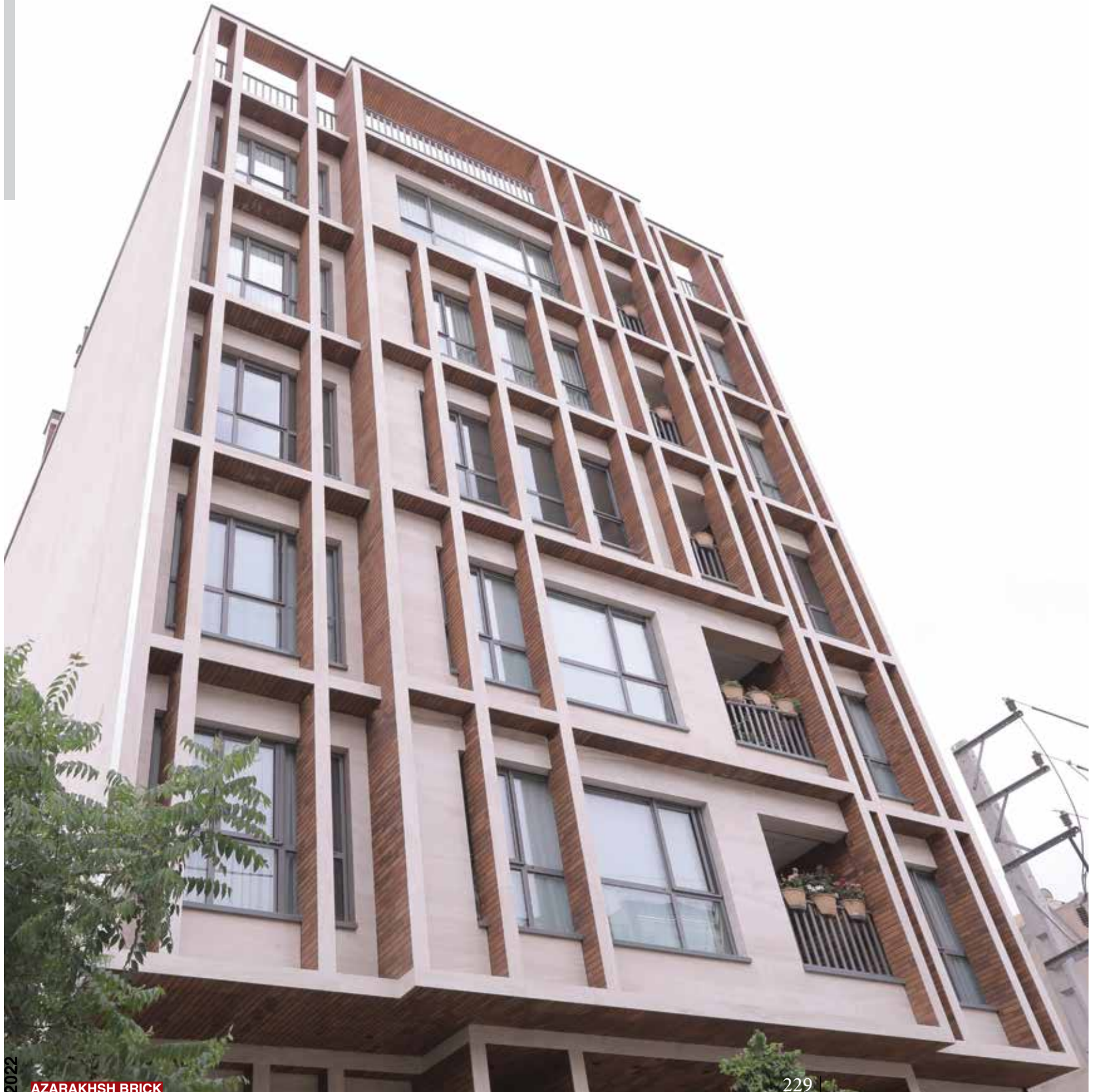
A facade that looks both natural and robust





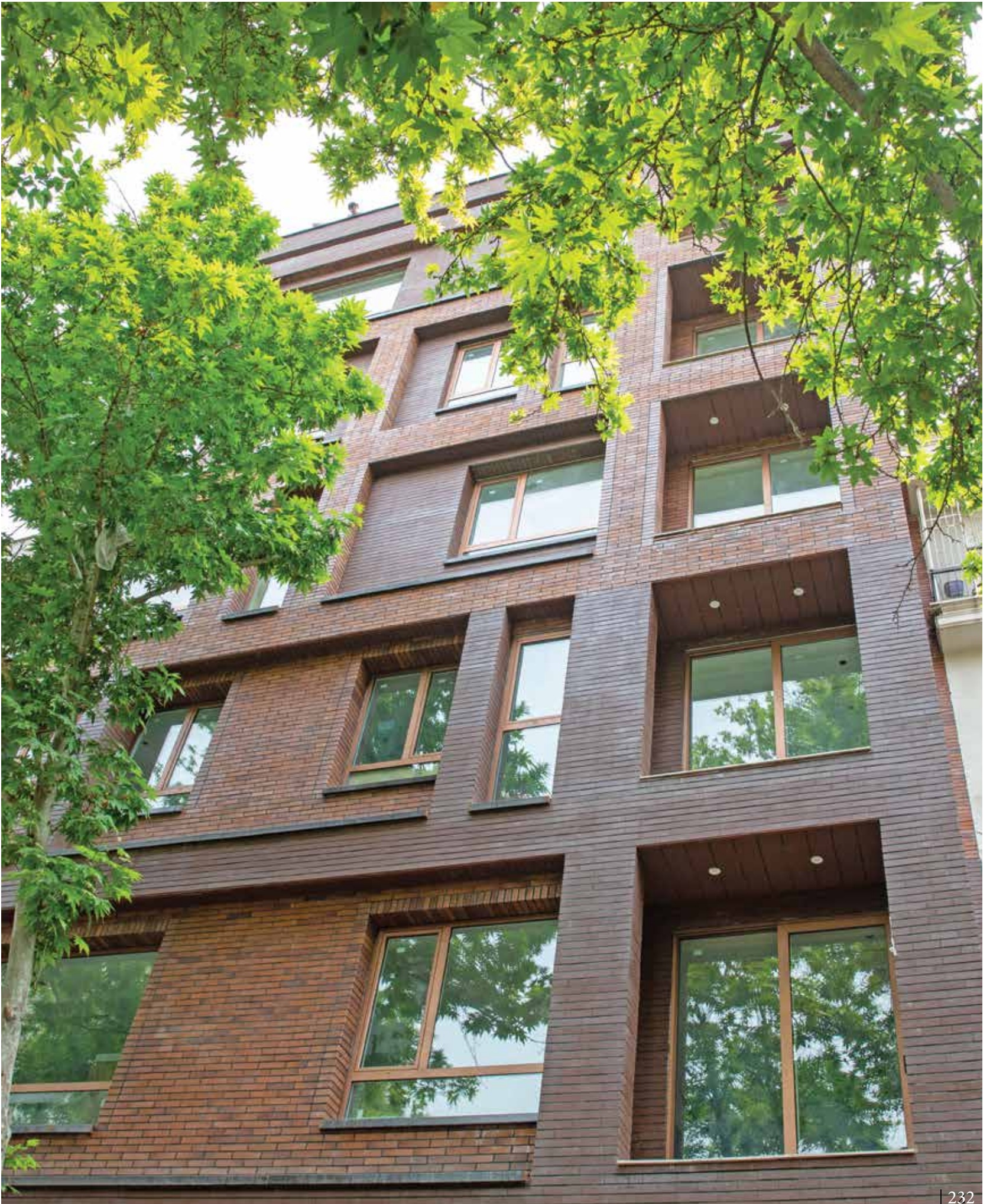


Besides comfort, a building made of bricks also has some financial advantages. Houses made entirely out of brickwork cost less in the long run, because they need less energy for heating. Research has proved that bricks for internal walls are best suited to households with passive and lower energy consumption, as the walls efficiently support the house's heating system and also absorb humidity that cannot escape through efficient climate shielding.









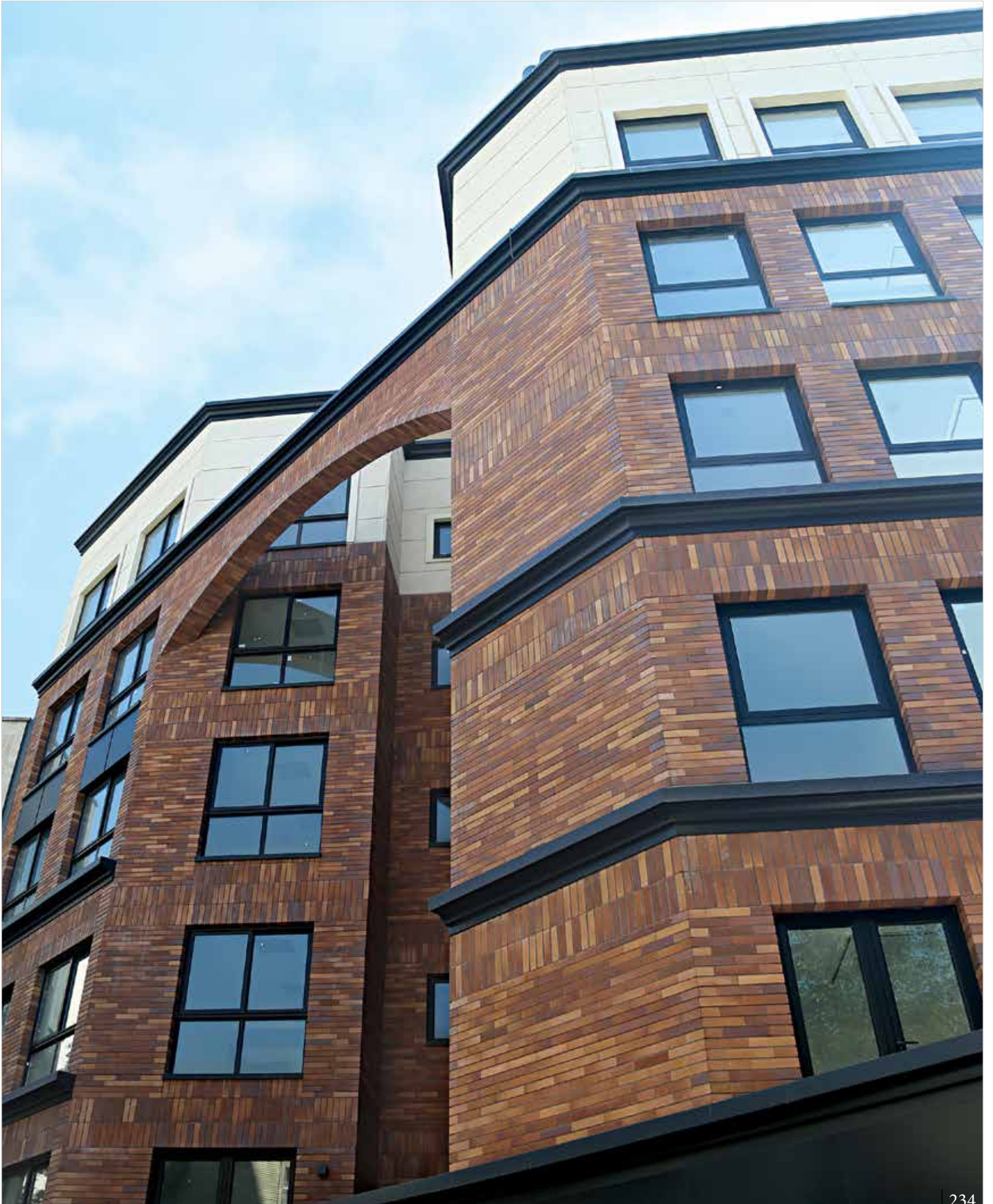




280 - AR20

280-70-25 mm





# back to **NATURE**











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You will need for cleaning brick slips

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2. Duster.
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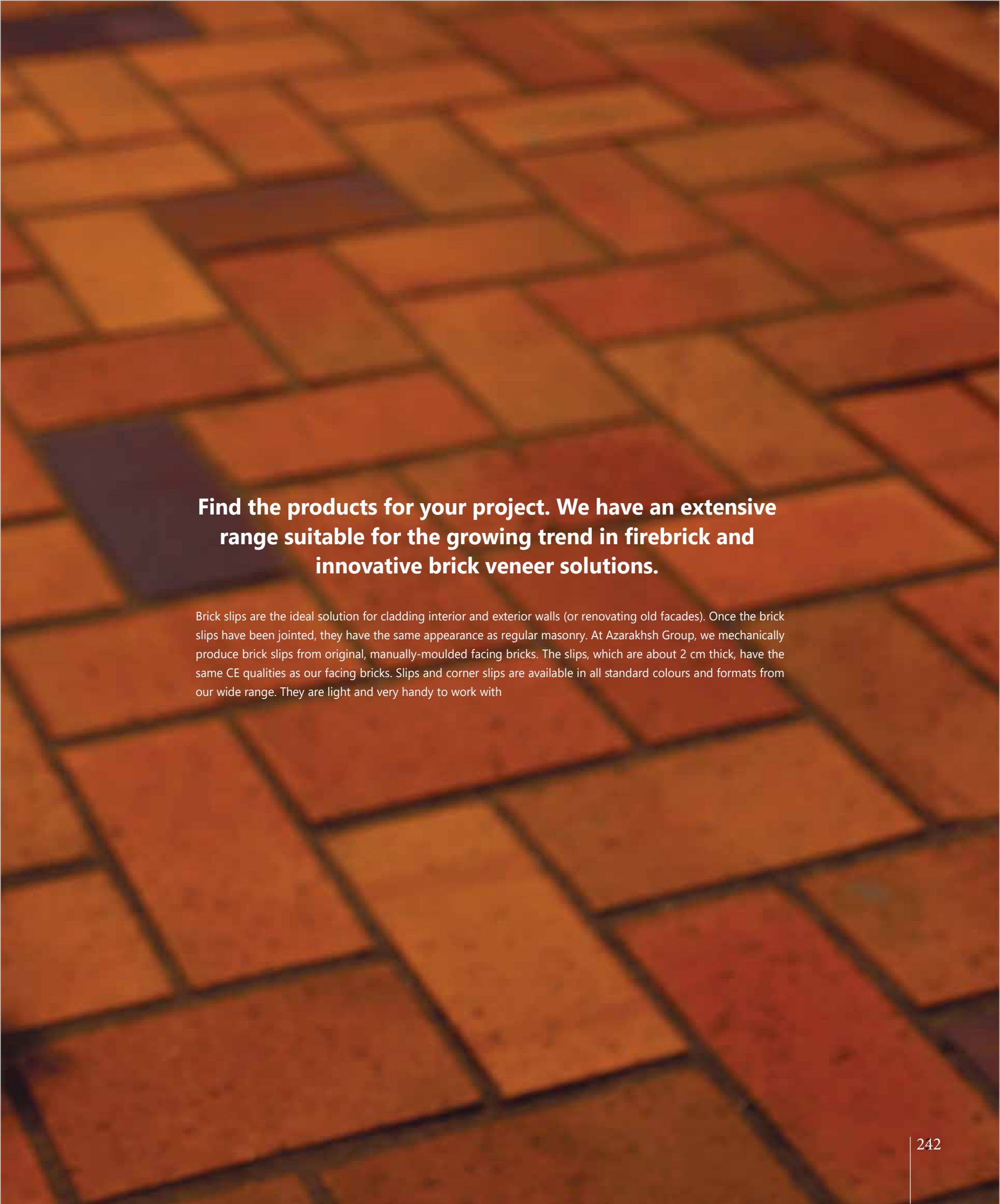
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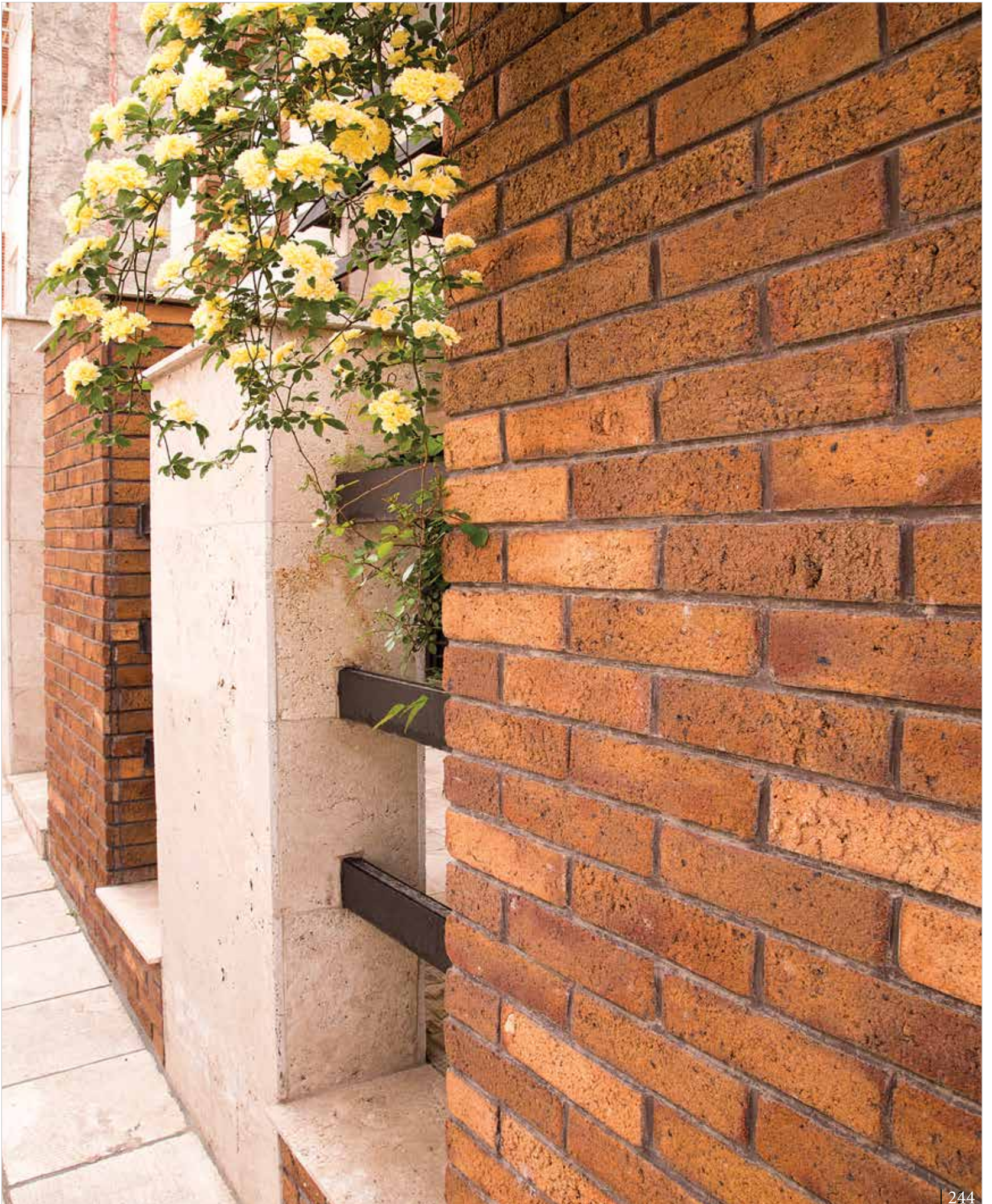


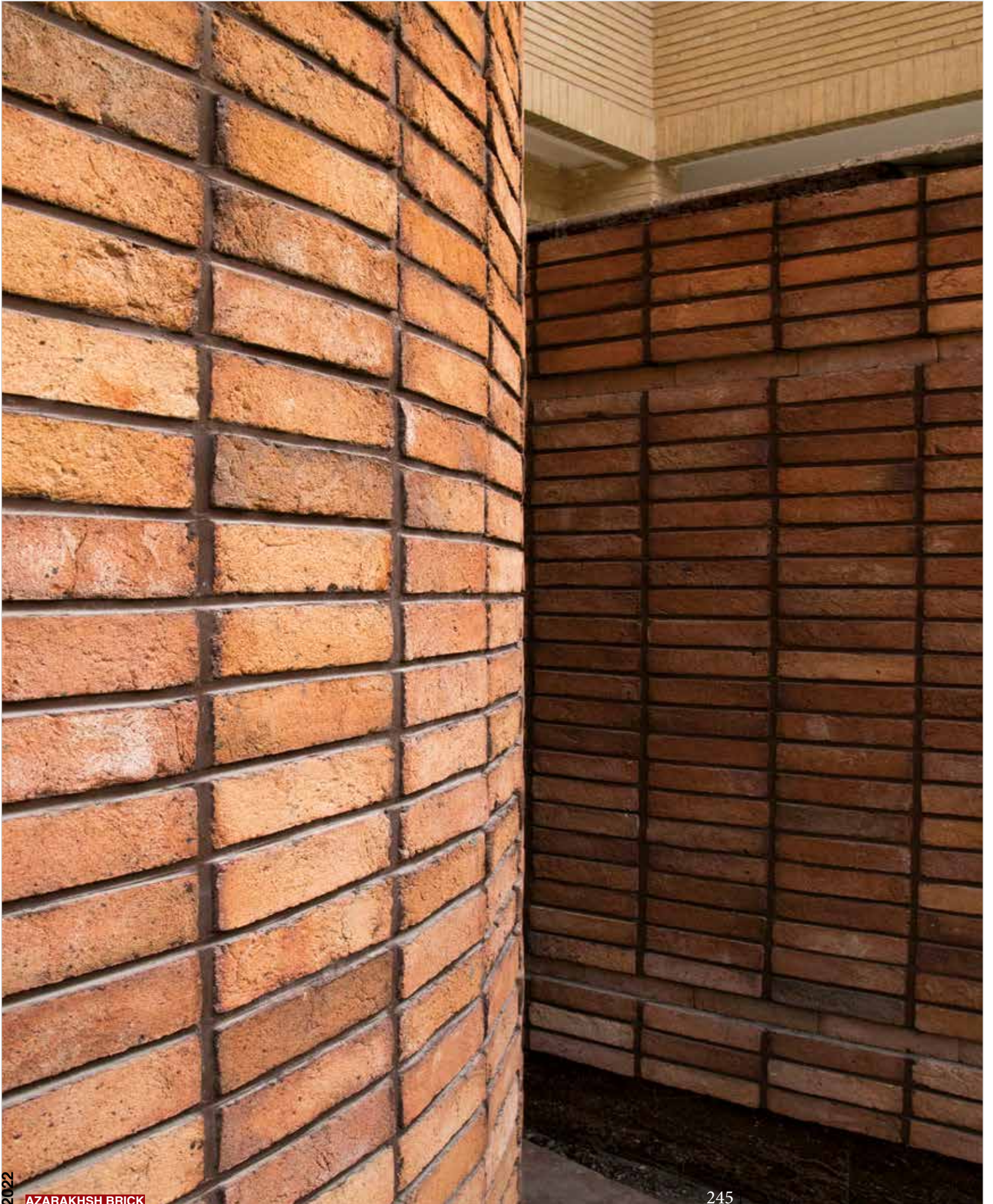


**Find the products for your project. We have an extensive range suitable for the growing trend in firebrick and innovative brick veneer solutions.**

Brick slips are the ideal solution for cladding interior and exterior walls (or renovating old facades). Once the brick slips have been jointed, they have the same appearance as regular masonry. At Azarakhsh Group, we mechanically produce brick slips from original, manually-moulded facing bricks. The slips, which are about 2 cm thick, have the same CE qualities as our facing bricks. Slips and corner slips are available in all standard colours and formats from our wide range. They are light and very handy to work with









**What is used to clean Azarakhsh brick?**

Mix equal parts vinegar and water and pour into a spray bottle. Spray on the bricks and let it sit for a few minutes. Use a sponge mop to clean the bricks. If the bricks are very dirty, use a nylon-bristled scrub brush and put some elbow grease into the scrubbing.



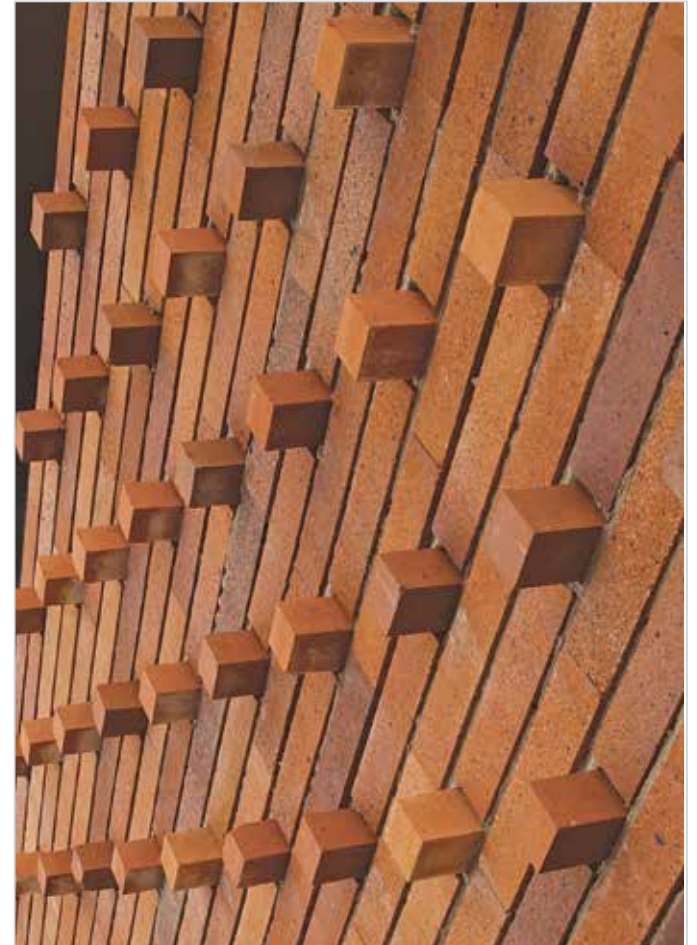


**How do I make Azarakhsh bricks shine?**

Fix up Azarakhsh brick with a high-gloss, wet look.

1. Clean bricks with a wire brush or broom and some water.
2. Choose between water-based and oil based mixtures.
3. Apply sealant with a concrete sprayer used for thick sealants, or with a paint roller if the area is smaller.





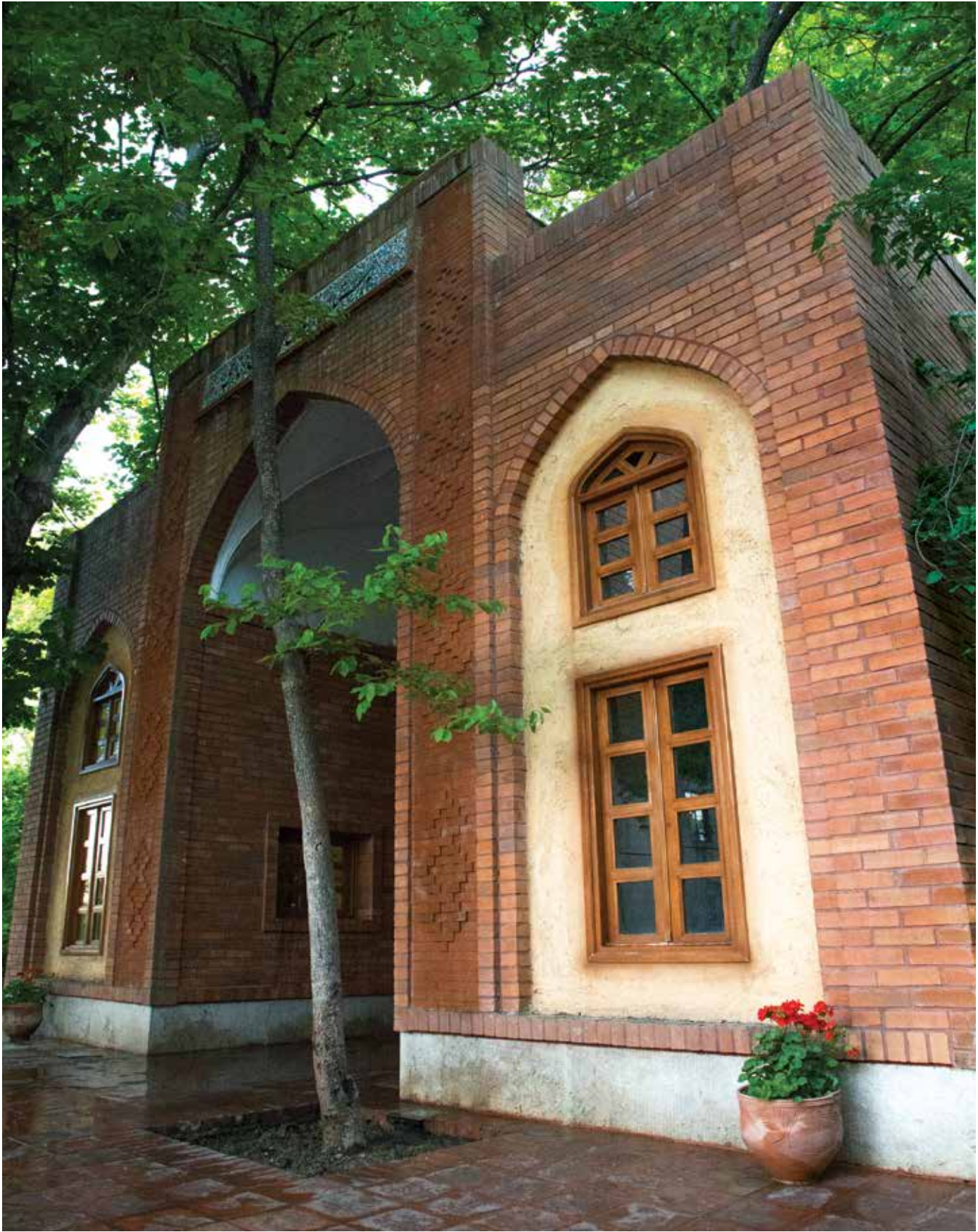
#### **CEO'S DECLARATION ON ENERGY POLICY**

Our company strives to achieve continuous reduction and elimination of energy consumption. Key points of the policy at Azaraksh Bricks factories locations in Iran are:

- Continuous effort towards improvement of energy performance
  - Prevention of incidents that lead to unnecessarily higher energy consumption
  - Compliance with legislation and regulations and other established requirements
  - Updating the Energy Saving Plan on a regular basis
  - Commitment to implementation of the Energy Saving Plan
- The management also informs the employees concerning the established, implemented policy objectives in order to achieve energy savings.



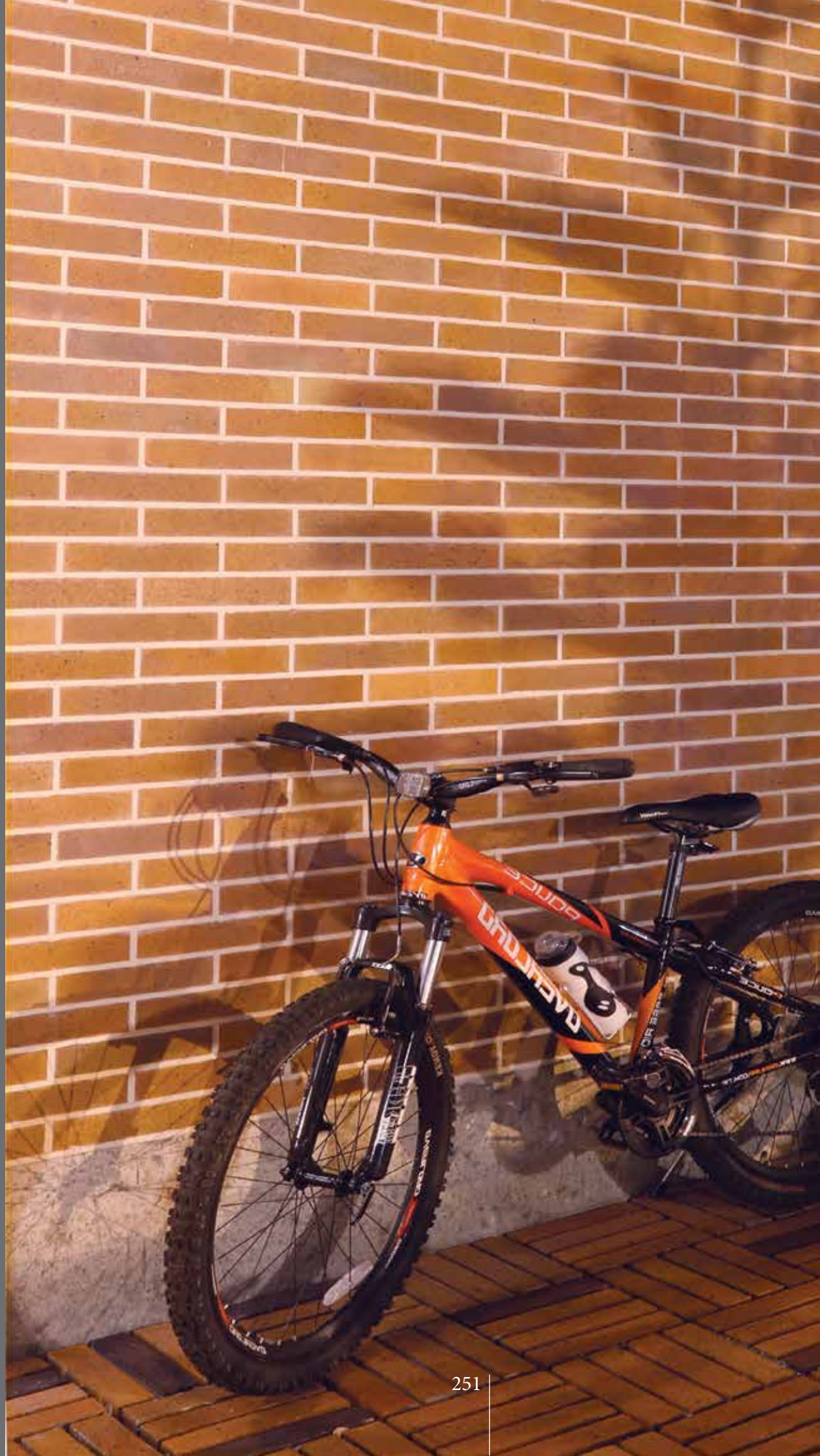




## Classic material meets modern design

Azaraksh Brick with its range of bricks and brick slips, enable you to discover the extraordinary wealth of terracotta, its multiple possibilities of implementation and its incredible ability to suit to all buildings.

Available in an unrivalled variety of hues and sizes, everything will appeal to your senses, the delicateness of the smooth finish, the rusticity of the sanded, the brightness of the glazed, and the authenticity of the Hand-Moulded. After more than 5 000 years of History, bricks remain at the avant-garde of modernity.



# WHAT ARE AZARAKHSH BRICK SLIPS?



We all want our homes to look good, both internally and externally. This is why when we are designing our home; we invest a lot of time and effort into the façade of the building.

**W**e need the exterior to not only look good but also protect the interior of your home from the wind, rain and extremely low or high temperatures. The good thing is that there is something that is available that will allow you to achieve a beautiful home that is protected. It will also lower your construction cost and save you time. It is both practical and cost effective. The product you are looking for is Azarakhsh brick slips. It is an efficient alternative to traditional bricks and has many advantages.

Azarakhsh Brick slips are made from Mineral raw materials extracted from our own mines, usually at about 20mm thick. These thin slices of brick replicate the appearance of the conventional brick. Just like the traditional brick, there are a wide variety of styles and colours allow you to create both contemporary and traditional looking walls.

Brick slips are easy to install. The brick slips are glued to an insulation wall on site. Once you have glued the brick slips in place, you will point them in the same way you would a traditional brick. Once you have pointed the bricks slip, they cannot be distinguished from a traditional brick wall.

You can use brick slips on any project that you have planned, including fireplaces, internal feature walls, external rendering of properties (façade) and kitchen, shops, restaurants, flooring, gardening etc. They can also be used on a timber-framed property to give the feel of a real brick finish, without the hassle of a traditional build and also allows the project to be completed in a fraction of the time.

There are many advantages of using brick slips over

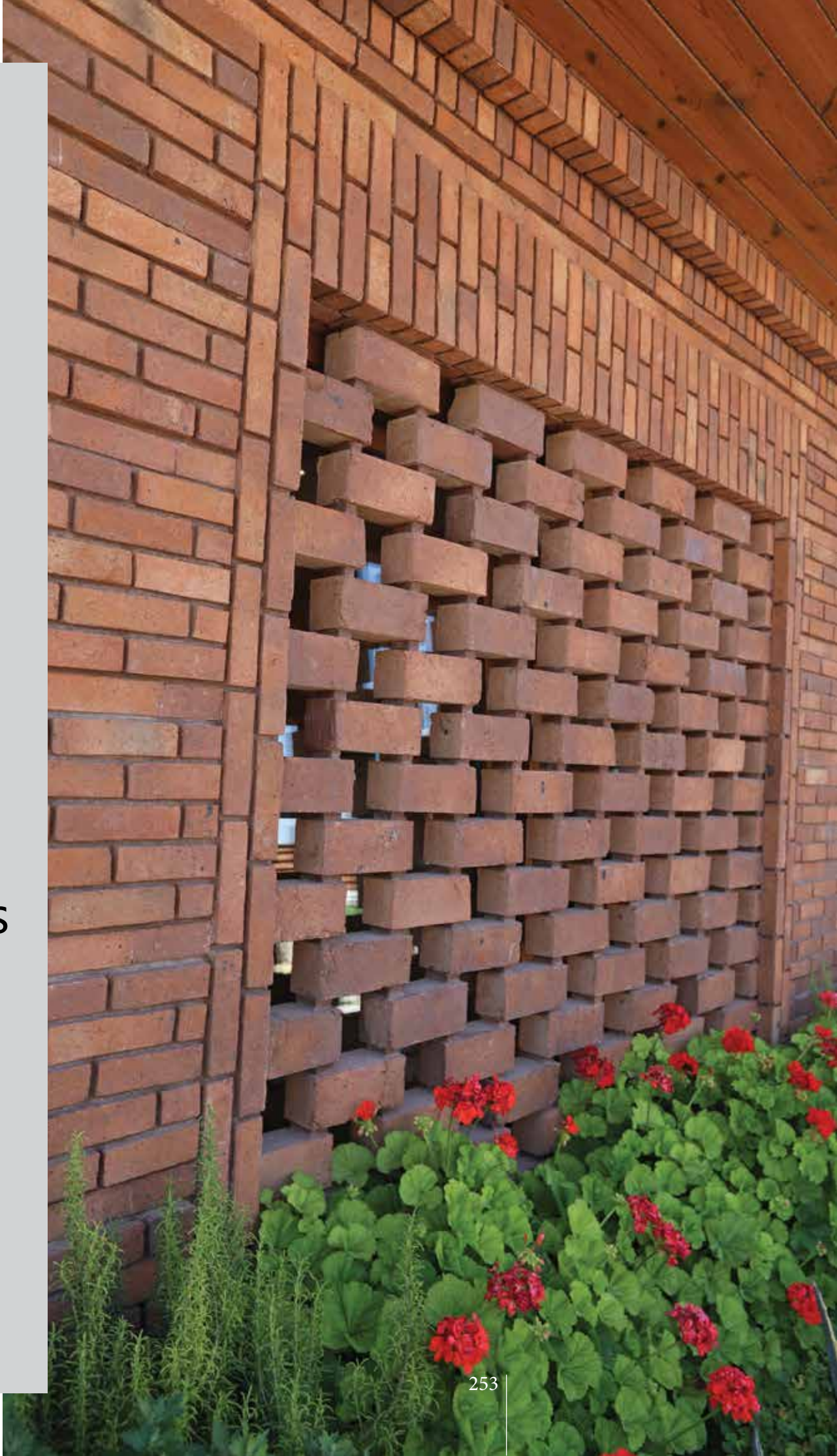
traditional bricks. The main advantage is that brick slips are extremely cost-effective. They are perfect for any DIY project, so there is a reduction in the need for skilled labour. Brick slips are also a lot lighter than traditional bricks, so the cost of transportation is reduced. You are also able to use brick slips on walls that do not have substantial foundations because they are so lightweight. This can cut down on build costs on your project. Using Azarakhsh brick slips on your project will reduce the amount of space needed to store the bricks. They also save you valuable space in a room when you use them internally. For example, if you use brick slips on 4 internal walls, the maximum floor space you would use will be 80 mm. Using traditional bricks could use up to 480 mm of floor space.

When you use Azarakhsh brick slips on existing external walls, the reduced thickness of the brick slip means that the original detailing of the windows and doors are maintained. This avoids high adjustment costs.

There are huge time scale benefits to using Azarakhsh brick slips. Creating a wall using Azarakhsh brick slips can be up to ten times faster than using traditional bricks. If you ensure that you use the correct adhesives you can install Azarakhsh brick slips in any weather condition. This reduces the amount of downtime that may have occurred due to bad weather. They are also easy to maintain, in that there is no need to paint or perform any upkeep tasks associated with other building materials, such as wood or vinyl. This reduces the amount of time spent in upkeep after installation. We have a wide range of brick slips available including handmade brick slips, Modern machinate brick slips and plaques brick slips even we have some variety of Loading bricks.



There are huge time scale benefits to using Azarakhsh brick slips.



# LIFELONG COMFORTABLE LIVING ENVIRONMENT

However, sculptures made by refractory materials do not show any of the above mentioned defects due to uniformity of materials and low absorption of water.

**M**usic, painting, sculpturing and generally arts originate from races, traditions, cultures and religious rituals. In addition, they represent the sentiments and thoughts of every religions and doctrines. If these arts are ruined, civilizations and cultures of every society are ruined in one hand and knowledge, literary and artistic information are diminished in human life. For this reason, we have to endeavour to provide materials which are highly durable and stable to create these valuable artistic works, those which are also resistant to climatic changes, rain and etc.

For this sake, statues, sculptures or other graved works which are used to decorate exterior spaces are more vulnerable to perdition (destruction) rather than other hand-made works since the materials which are used for creating these sculptures or statues are mostly made from, cement, stone, plaster or clay. Among these materials, cement and stone can only be used exteriorly, but they have their own problems. Due to water absorption, cement is decomposed. Most rocks have sedimentary origins and they become eroded due to temperature fluctuations. However, sculptures made by refractory materials do not show any of the above mentioned defects due to uniformity of materials and low absorption of water. Therefore, the created works are long-lasting and there are no spatial restrictions to mount them.



موسیقی، نقاشی، مجسمه سازی و به طور کلی هنر در هر سرزمین، ریشه در آداب و رسوم فرهنگ و مناسب مذهبی اقوام دارد و همچنین بیانگر عواطف و افکار هر آئین و مذهب است. از میان رفتن این هنرها از طرفی باعث از بین رفتن تمدن و فرهنگ هر جامعه و از طرف دیگر سبب کاهش و تنزل دانش و اطلاعات ادبی و هنری در امور زندگی انسان در همه قرون و عرصه ها می شود. از این رو باید بکوشیم تا مصالحی که برای خلق و به وجود آوردن این آثار گرانقدر هنری مورد استفاده قرار می گیرند از دوام و استحکام بالایی برخوردار باشند و در برابر تغییرات آب و هوایی، باد و باران و... گزند نینهند. از این رو تندیس ها، پیکره ها و یا دیگر آثار منقوشی را که برای آراستن فضای خارجی مورد استفاده قرار می دهیم، بیش از سایر هنرهای دست ساز در معرض نابودی قرار می گیرند، زیرا مصالح لازم برای خلق انواع تندیس ها و یا پیکره ها و... اغلب سیمان، سنگ، گچ و یا سفال است. از این میان تنها سیمان و سنگ قابلیت استفاده در فضای خارجی را دارند و آنها نیز معایبی دارند. سیمان به جهت قابلیت جذب آب در هنگام یخ زدگی متلاشی می شود و انواع سنگ نیز به دلیل رسوبی بودن، پس از گذشت زمان در نواسانات دمایی دچار فرسایش شده و منجر به متلاشی شدن می شود. اما مجسمه های ساخته شده با مواد نسوز، به دلیل یک نواختی مواد و جذب آب کم، هیچ یک از معایب مذکور را نداشته و اثر هنری ساخته شده با آن ماندگاری بسیار زیادی دارد و هیچ گونه محدودیت مکانی جهت نصب ندارند.



Human's sense of perfection always tends him towards selection of the bests. Such tendency takes root from his nature. The sensitivity of selecting the bests redoubles when it deals with aesthetics and serenity in work and home places. The procedures of design and production of **Azarakhsh Bricks** is laid behind the fact that it works on a combination of beauty and applicability. Such actions, in turn, take root from the identification of needs and the elegance of users as well. Diversity of color and texture in **Azarakhsh Bricks** has smoothed the path for architects and designers to use our **Bricks**. In fact, the combination of beauty and application is a gift which is best owed by the **Azarakhsh** group to our users. Of the other considerable properties of our products, resistance to erosional factors and durability against high pressures can be exemplified in addition to diversity of color and form. Our products enjoy from high resistance against different kinds of acids and acid rains. Moreover, being environmentally- friendly, applicability for interior and exterior spaces of building and non-slippery characteristics are of the other properties of **Azarakhsh Bricks**.

حس کمال گرای انسان ، او را همیشه به سوی انتخاب بهترین ها سوق می دهد که این امر ریشه در فطرت و سرشت او دارد . این حساسیت زمانی دو چندان می شود که موضوع در رابطه با زیبایی و آرامش محل زندگی و کار او باشد. فرآیند طراحی و تولید در آجرهای آذرخش به گونه ای است که ترکیبی از زیبایی و کارایی در آن مشاهده می شود که این امر از شناخت نیازها و سلیق مصرف کنندگان نشات می گیرد .تنوع رنگ و بافت در آجرهای آذرخش به نحوی است که انتخاب را برای طراحان و معماران آسان نموده است . ترکیب زیبایی و کارآمدی دستاوردی است که گروه آذرخش آن را به شما هدیه می دهد. از دیگر خصوصیات بارز این محصولات علاوه بر تنوع در شکل و رنگ ، می توان به مواردی چون مقاومت در برابر عوامل فرسایش زا و تحمل فشار بالا را برشمرد .این محصولات همچنین از مقاومت بالایی در برابر انواع اسید و باران های اسیدی برخوردارند. سازگاری با محیط زیست ، قابلیت استفاده در فضاهای داخلی و خارجی و عدم لغزندگی از ویژگی های برتر محصولات آذرخش می باشد .

# Goals and honors of Azarakhsh International Group of Firebricks Manufactories



- Obtaining two **ISO 9001** Standard certificates from MIC and Premier of England
- Obtaining **ISO 9001-2008** Standard certificate of Quality Management from **ITCC** of England
- Obtaining International **ISO 10002:2004** Standard certificate of Customer Satisfaction System from England
- Obtaining International **OHSAS 18001:2007** Standard certificate of Health and Safety from **ITCC** of England
- Obtaining International **ISO 14001:2004** Standard certificate of Environmental standard from **ASCB(E)** of England



- Obtaining the position of Golden Product from Iran Confair **2010**
- Obtaining the standard emblem of Iran
- Obtaining 8 certificates from the Brick Industry Association (U.S.A)
- Brick Veneer- Environmental Cladding Choice
- Colors and patterns in brickwork
- Mortars for brickwork
- Water management in exterior walls
- Sustainability and brick masonry
- Water- resistant brickwork
- Articulation and scale in brickwork



### Our goals are as following:

- Reaching a common concept of quality
- Providing assurance for costumers
- Identification and control of product properties which are not measurable by laboratory methods
- Creation of motivation for staffs and attracting their cooperation for advancement of the Co.'s goals
- Increasing the value of process output values by creating strategies for preventing error
- Strategies for segregation of favorable and unfavorable products
- Advancing towards comprehensive management system



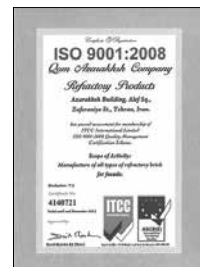
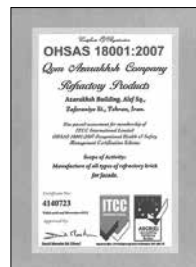
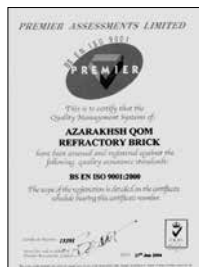
### اهداف و افتخارات گروه بین المللی کارخانجات آجر نسوز نما آذرخش:

- کسب دو گواهینامه ISO 9001 از MIC و premier انگلستان
- دریافت گواهینامه 2008- ISO 9001 مدیریت کیفیت از ITCC انگلستان
- دریافت گواهینامه استاندارد بین المللی 2004 - ISO 10002 سیستم رضایت مشتری از انگلستان
- دریافت گواهینامه استاندارد 2007 - OHSAS 18001 ایمنی و بهداشت از ITCC انگلستان
- دریافت گواهینامه استاندارد بین المللی 2004 - ISO 14001 استاندارد زیست محیطی (ASCB(E) انگلستان
- کسب مقام محصول طلایی Iran Confair 2010
- دریافت علامت استاندارد ایران
- کسب 8 گواهینامه از انجمن آجر امریکا
- Brick Veneer – Environmental Cladding Choice
- Colors and Patterns in Brickwork
- Mortars for Brickwork
- Water Management in Exterior Walls
- Sustainability and Brick Masonry
- Water – Resistant Brickwork
- Articulation and Scale in Brickwork



### اهداف ما عبارت است از :

- رسیدن به یک مفهوم مشترک از کیفیت
- اطمینان بخشیدن به مصرف کننده و مشتری
- تشخیص و کنترل ویژگی های محصول که با استفاده از متدهای آزمایشگاهی قابل اندازه گیری نیستند
- ایجاد انگیزه در پرسنل و جلب مشارکت آنها در پیشبرد اهداف شرکت
- افزودن به ارزش خروجی های سیستم فرآیند با ایجاد راه کارهای جلوگیری از بروز خطا
- راه کارهای جدا سازی اقلام خوب و معيوب
- در نهایت پیمودن مهم ترین گام در راه رسیدن به مدیریت کیفیت جامع



The Greatest Manufacturer of Firebrick Productions & Facing Brick In Middle East







- رهبر کارآفرین مسلمان از دانشگاه تهران در مراسم هشتادمین سال تأسیس دانشگاه تهران.
- انتخاب پدر صنعت نوین آجر توسط رئیس قوه مقننه ، آقای دکتر لاریجانی.
- برگزیده ی چهره ی ماندگار از وزارت علوم ، تحقیقات و فناوری.
- برگزیده ی کنفرانس بین المللی معماری و ریاضیات دانشگاه کاشان
- انتخاب واحد نمونه ی صنعتی و معدنی در سال های ۹۴ تا ۹۷
- برگزیده ی کار آفرین نمونه از دانشگاه شهید بهشتی.



# What to do? Just trust to professionals



# BONDING PATTERNS

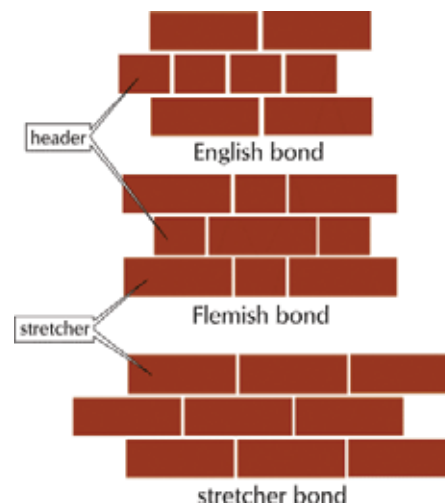
WHEN YOU ARE CREATING YOUR PERFECT LOOK WITH YOUR BRICKWORK THERE ARE A NUMBER OF DIFFERENT ELEMENTS TO CONSIDER THAT CAN MAKE A HUGE DIFFERENCE TO THE OVERALL APPEARANCE OF YOUR BUILDING.

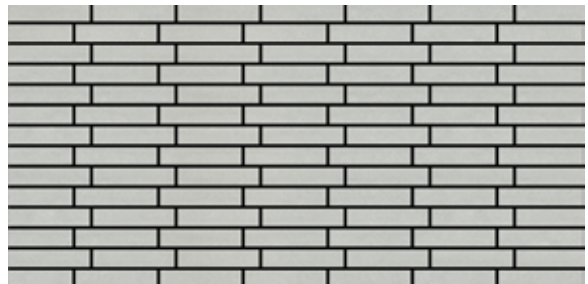
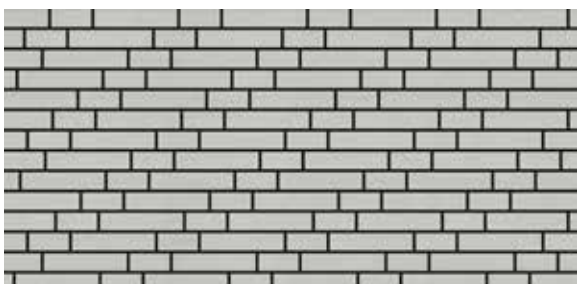
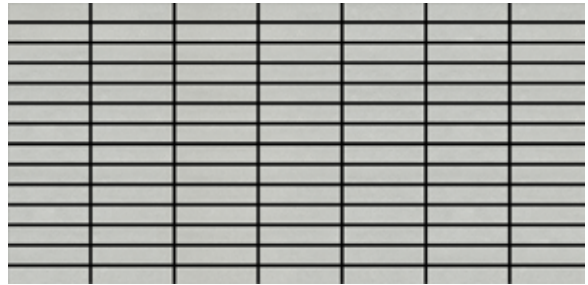
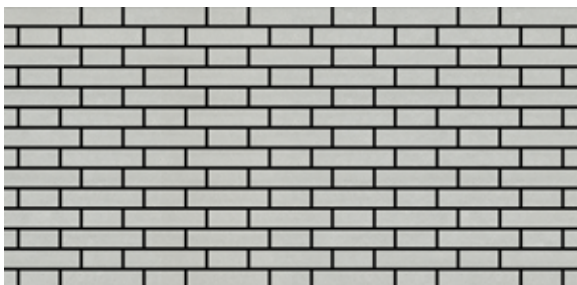
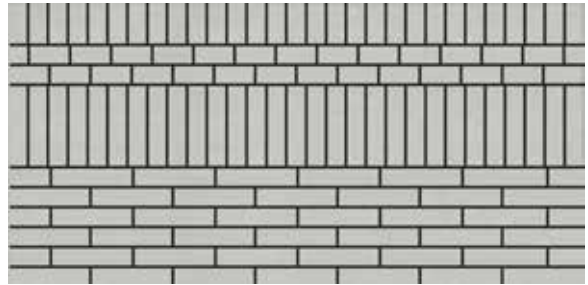
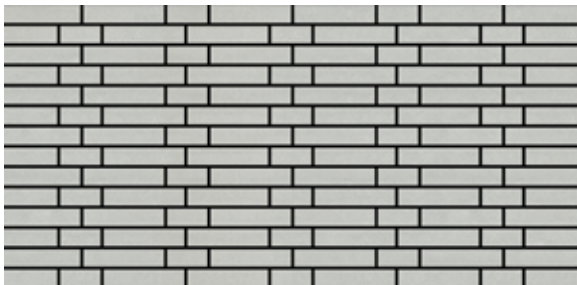
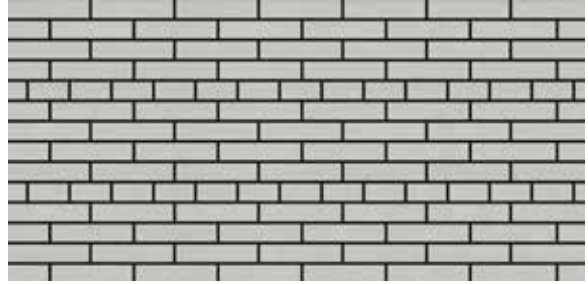
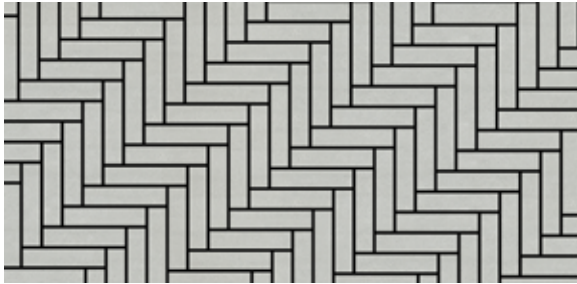
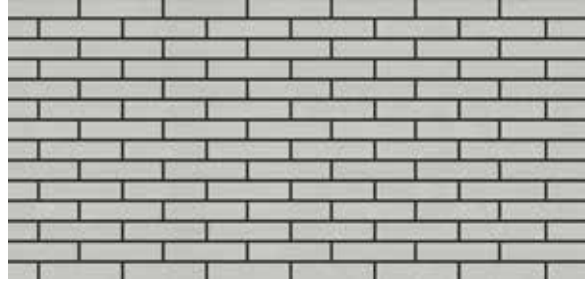
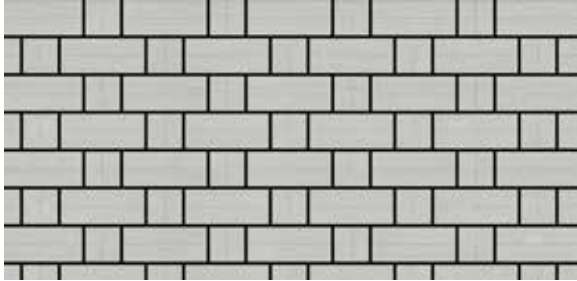
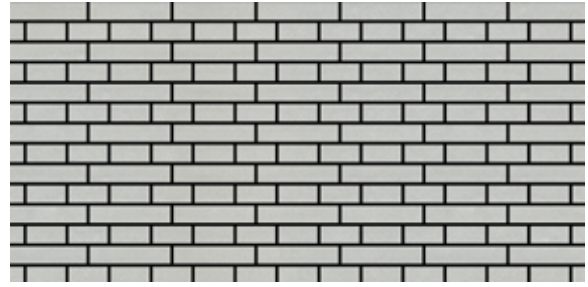
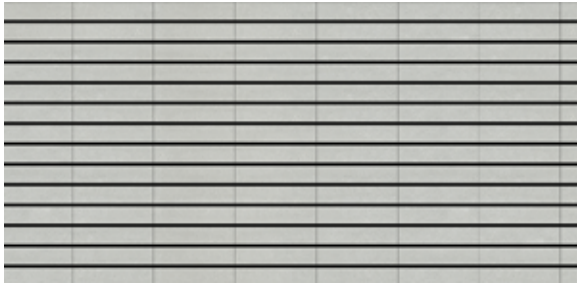
## BRICK SLIP BONDS

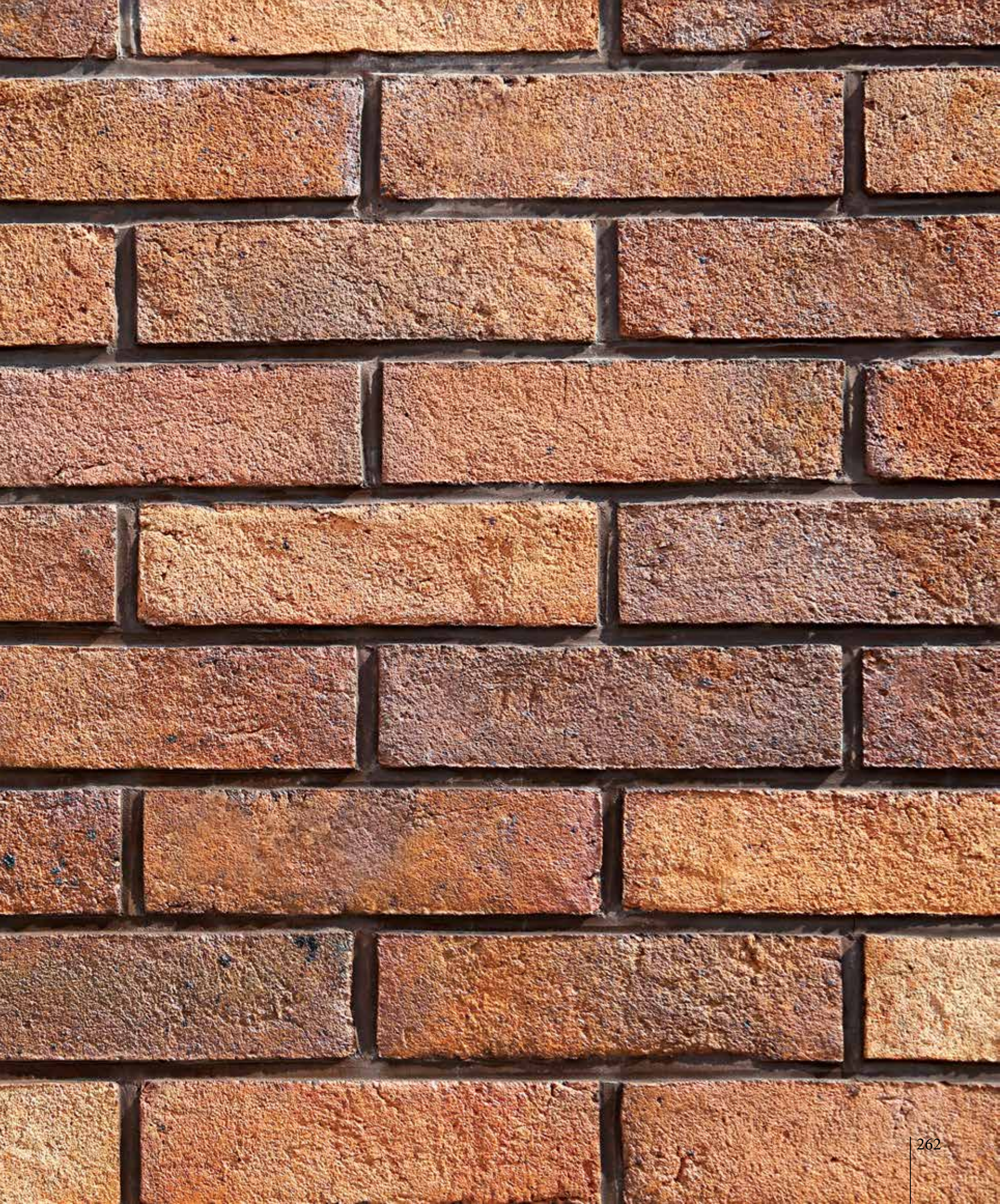
The way Azarakhsh brick slips are placed with one another – the connection – defines the composition of the brick wall. The “stretcher bond” produces the most familiar brick (and most commonly-found) pattern, but there are several options. An overview.

- 1. Stretcher bond** This is the most common and used brickwork method. The vertical joints are staggered each time by half a brick. There is hardly any loss of material because the brick slips do not have to be cut to size.
- 2. Stack bond** (or stacked bond) This bond visually emphasises the vertical aspect of the masonry. The brick slips are installed one on top of the other so that not only the horizontal edge joints, but also the vertical head joints are continuous. This can be done with stretchers as well as with headers. However, the latter will raise the price due to all the cutting work.
- 3. Irregular bond** As the name hints at, there is no pattern in this bond. Various lengths of brick slips are used, but never smaller than a quarter length. There is only one rule: the vertical head joints may not continue into the next course, but must stagger each time. This bond is recommended when gluing brick slips that are characterised by a low dimensional stability. For example, brick slips from recycled bricks.
- 4. Raking stretcher bond** A variation on the stretcher bond. The vertical joints are staggered each time by a quarter or three-quarters of the brick's length. Aesthetically this gives a descending movement to the bond. This can even be carried out to the left and to the right. At a certain height you change the direction in order to break the long bonds of slanting bricks. This way you create a zigzag effect. By laying a quarter-closer, the direction of the 'toothing' changes, descending to the left or to the right. In this example, a quarter-closer has been used every two courses, resulting in 'racking' (a standing tooth).
- 5. English bond** This bond maintains a pattern of headers and stretchers. A course of stretchers alternates with a course of headers. The stretcher course is each time started with a king-closer (three-quarter brick slip).
- 6. Block bond** A combination of the stretcher and stack bond. Two courses are put in stack bond and the next two courses are installed while staggering by half a brick slip. You can be very creative with bonds. Here the block bond has 4 courses, but it alternates with a horizontal-vertical stack bond.
- 7. English cross bond** As the name hints at, crosses are visible in this pattern. They are formed by alternating a course of headers with a course of stretchers, just like in English bond. There are 2 variations: English cross bond with king-closer: A king-closer is used at the end of the stretcher course. Every 4 courses a header is installed next to the king-closer. This way the bond is staggered by half a brick slip. English cross bond with queen closer: The king-closer is NOT placed in the stretcher course

- but in the header course. Furthermore, it is not placed all the way at the end, but next to the header of the last course. Every 4 courses a header is added in the stretcher course so that the brick slips are staggered by half a length.
- 8. Monk bond** An elegant and often used bond with a simpler pattern. All the courses consist consecutively of a header and two stretchers. As a result, the headers are aligned every second course, resulting in the formation of a 'procession'. Compared to the English bond and the English cross bond, the number of headers is limited and therefore the price is lower.
- 9. Header bond** All the courses consist only of headers that are staggered by half a length. The header bond is sometimes combined with the regular stretcher bond in order to create a curve in the wall in an easier way, for example.
- 10. Flemish bond** This bond resembles the monk bond. It differs in that all courses consist consecutively of a header and a stretcher. An often used bond that includes a little more cutting work.
- 11. French bond** Every course alternately consists of a stretcher and two headers. No vertical head joints. By gluing the brick slips against each other horizontally, the head joints disappear and only the head joint remains. This emphasises the horizontal play with lines even more. It is an elegant way of visually lengthening a wall.







## نکات مهم در هنگام اجرای نما

# Important points for construction of facade

- Masonry bar and thread should be used during the process of **BRICK** work to make sure from the balance of fixed rows.
- Using mortar balancing bar to create a uniform space between two **BRICKS** is recommended.
- Paying attention to vertical articulations during construction by fixing some balancing threads along the work (in vertical mode).
- In case of change in the lengths of **BRICKS**, use the inner space of **BRICK** joints to solve the problem of **BRICK** size in order to put vertical joints in one direction orderly.
- Sand with appropriate grading should be selected for the mortar which is to be used between **BRICKS** in such a way that it does not prevent balancing.
- **BRICK** work should be controlled from the viewpoint of balancing and being flat along each meter of **BRICK** work.
- Cleaning the **BRICK** layer during articulation is as important as the sensitivity of **BRICK** fixing. Therefore, you are recommended to pay enough attention to articulation.
- In accordance with the provisions of general properties of construction work as compiled by the State Organization for Management and Planning, facade should not be diverted more than 6 mm for each floor with height of 3 m.
- In addition, diversion from vertical direction should not exceed 30 mm in total height of building and tolerance of joints widths in **BRICK** work facade (except Antique and rustic **BRICKS**) should not exceed  $\pm 1\text{mm}$ .



In case of change in the lengths of BRICKS, use the inner space of BRICK joints to solve the problem of BRICK size in order to put vertical joints in one direction orderly.



- استفاده از شمشه بنایی و ریسمان برای شاقولی یک نواختی در طول کار.
- استفاده از شمشه ملات برای ایجاد فضای یک نواخت در بین دو آجر
- توجه به بندهای عمودی در هنگام اجرا با نصب تعدادی ریسمان قپانی در طول کار (عمودی)
- در صورت وجود تغییر اندازه در طول آجرها، از فواصل میانی بندها برای برطرف نمودن این موضوع کمک گرفته تا بندهای عمودی به صورت منظم در یک امتداد قرار گیرند.
- انتخاب ماسه با دانه بندی مناسب برای ملات بین آجرها به صورتی که مانع از تراز کردن آنها نشود.
- کنترل آجرکاری از لحاظ شاقولی، تراز و مسطح بودن در هر متر از فضای کار شده
- تمیز نگاه داشتن سطح آجر شده در هنگام بندکشی به اندازه ی حساسیت در چیدمان آجرها حائز اهمیت است. لذا به مطالب ارائه شده در قسمت بندکشی توجه ویژه ای داشته باشد.
- طبق مفاد مشخصات عمومی کارهای ساختمانی که از طرف سازمان مدیریت و برنامه ریزی کشور تدوین شده است، انحراف نما از امتداد قائم برای هر طبقه به ارتفاع ۳ متر نباید از ۶ میلیمتر تجاوز کند. همچنین انحراف از امتداد قائم در کل ارتفاع نباید از ۳۰ میلیمتر بیشتر باشد و رواداری پهنای بندها در نما سازی با آجر (بجز آجرهای آنتیک و رستیک) نباید از ۱+ میلیمتر تجاوز کند.

# Preparation of Brick Works Ground

## 1 . Preparation of Brickwork Ground

In accordance with carried out designs for building facade and geometry of building design, the **BRICK** work ground shall be prepared in such a way that no obstacles should be against installation of **BRICK** work plummet. Verification of the surfaces which the **BRICKS** are to be fixed; from the view point of vertical and horizontal planes of working:

By using advanced tools, the verticality of surface can be assured. Such procedure may be carried out traditionally. For this reason, thread the string in different surfaces like balancing to better understand the ground of **BRICK** fixing. By considering 2 cm (at minimum) or 6 cm (at maximum) of mortaring behind **BRICK**work surface, take action to remove these impediments by using different methods

## 2 . Chassis lying

It is recommended to use metallic plates inside concrete in different parts of beam and column of concrete-frame buildings in order to prevent damages to concrete structures. During the operation of chassis lying, the **BRICK** work ground can be designed in such a way that the used metallic plate be fully covered with **BRICK** and mortar to prevent probable corrosion.

Paying attention to the construction of gutta is very important during the design of chassis, so that the trickled down water should not have destructive effects on the building facade and ruins it's seeable appearance. Using a mortarfree of organic matter is advised to prevent probable efflorescing which is due to direct effect of back-laid mortar.

## 3 . Brick Fixing Stage

There are different methods to fix **BRICKS** in accordance with climatic conditions where the operation is carried out. In addition, using **BRICK** work for interior or exterior spaces affects the method of **BRICK** fixing. In general, there are two methods for **BRICK** fixing. Firstly, they can be fixed by adhesives, and secondly, they can be fixed with mortar.

Using adhesives are not recommended for exterior facade of the building. When the ground of work is prepared and the lower part is tested to be balance, the first row of **BRICKS** has to be laid and fixed. For early stages, **BRICKS** may be placed side by side in accordance with **BRICK** arrangement and the elegance of designer.

## 4 . Brick Fixing Stage

In this method balancing of the lower row of laid **BRICKS** (horizontal and vertical) should be assured when the first row is fixed. Using masonry bars (preferably 2 m in height) is recommended to test the balance of both sides of the laid **BRICK** surface. In addition, using mortaring bar and the mortar which consist of cement, leached broken sand with soft grading on an appropriate ground may yield a favorable thickness for the next row of **BRICKS**.

When the next row of **BRICKS** is fixed on a row of mortar, a grout consisting of cement and sand should fill the back of laid row and the process should be continued until the end of **BRICK** work in accordance with design of building and manner of construction.

## ۱. آماده سازی بستر کار :

با توجه به طراحی های انجام شده برای ساختمان و هندسه طرح، بستر کار باید به نحوی آماده شود که هیچ گونه مانعی برای نصب شاقولی آجر نباشد.

### - بررسی سطوح نصب آجر، از نظر صفحه ی عمودی و افقی کار :

با استفاده از ابزار های پیشرفته می توان از شاقول بودن کار اطمینان حاصل کرد و می توان به صورت سنتی نیز این کار را انجام داد. به این نحو که با ریسمان کشی هایی در سطوح مختلف، مانند قیاب کشی، از وضعیت بستر محل نصب آجر آگاهی پیدا کرد و با در نظر گرفتن حداقل ۲ سانتیمتر و حداکثر ۶ سانتیمتر ملات در پشت آجر، جهت رفع این موانع از شیوه های مختلفی مانند شاسی کشی استفاده نمود.

## ۲. شاسی کشی :

در نقاط مختلف تیر و ستون در ساختمان های بتنی، استفاده از صفحه پلایت

های فلزی در داخل بتن توصیه می شود، تا از آسیب رساندن به سازه های بتنی جلوگیری شود. در هنگام شاسی کشی می توان بستر کار را به صورتی طراحی و اجرا نمود که فلز استفاده شده در آن با آجر و ملات کاملا پوشیده شود تا از پوسیدگی احتمالی آن جلوگیری شود. توجه به ایجاد آب چکان در طراحی شاسی بسیار حائز اهمیت می باشد، به گونه ای که آب ناشی از بارندگی بر روی نما اثر مخرب نداشته باشد تا از جلوه ظاهری نما کاسته نشود. استفاده از ملاتی که عاری از هر گونه عناصر آلی است، برای جلوگیری از شوره زدگی احتمالی که تاثیر مستقیم ملات پشت کار می باشد توصیه می شود.

## ۳. مرحله نصب آجر :

برای نصب آجر روش های گوناگونی وجود دارد که با در نظر گرفتن شرایط اقلیمی محل نصب آجر و همچنین موقعیت قرار گیری آن در داخل یا خارج ساختمان می توان آن را به دو صورت چسبی و ملاتی اجرا نمود. که استفاده از روش چسبی در نمای خارجی ساختمان توصیه نمی شود. پس از آماده سازی بستر و اطمینان از تراز بودن قسمت زیرین، شروع به چیدمان ردیف (رج) اول می کنیم. در مراحل اولیه کار می توان از روش ساده یا هره چینی با توجه به چیدمان آجر و سلیقه طراح بهره گرفت.

## ۴. روش اجرای ملاتی :

در این روش پس از اجرای ردیف اول باید از تراز بودن سطح آجر چینی (افقی و عمودی) اطمینان حاصل کرد. استفاده از شمشه های بنایی (ترجیحا به ارتفاع ۲ متر) در دو طرف سطح مورد نظر به صورت شاقولی از همه جهات توصیه می شود. استفاده از شمشه ملات و ریختن ملاتی متشکل از سیمان و ماسه شسته شکسته با دانه بندی نرم، بر بستری مناسب می تواند ضخامت دلخواه را برای ردیف بعدی ایجاد نماید. پس از چیدن ردیف بعدی آجر روی لایه ای از ملات، پشت آن را با دوغاب سیمان و ماسه پر می کنیم و در ادامه با توجه به طرح ساختمان و فرم اجرا همین روند را تا انتها تکرار می نماییم.



There are different methods to fix **BRICKS** in accordance with climatic conditions where the operation is carried out.



The main role of articulation or jointing is to predict superficial expansion or contraction and distribute such changes to the building facade. In addition, articulation should prevent water and moisture penetration to internal layers of buildings. For this reason, articulation mortar should be fine grain with much cement to prevent capillarity. Articulation should complete the attraction of building perspective. The width of Bricks joints should be 8 to 20 mm based on the selected design. Before articulation, its place should be brushed and wetted. The minimum amount of cement for articulation is 400 Kg per 1 cubic meter. In addition, the aggregate diameter should not exceed 1mm. The most appropriate time for articulation is prior to mortar hardening (25 days after construction). However, articulation should be prevented in cold or hot weather or during raining. In case, this action should be carried under above mentioned circumstances, special schemes of concrete laying in very hot and cold weather are obligatory. In hot weather, articulation should be carried out away from sunlight and protected with appropriate wet protections. In cold weather, it should be carried out in sunny days between 10:00 p.m. to 14:00. In addition, sand and warm water should be used and the articulated wall should be protected from heat. Mortar hardening speed decreased when the temperature drops. Therefore, articulation in cold weather should be carried out provided that there would be enough time for hardening prior to frost time.

نقش اصلی بند کشی، پذیرش انبساط و انقباض سطحی، موضعی و توزیع آن به طور یکنواخت در نمای ساختمان است. بند کشی باید مانع ورود آب و نفوذ رطوبت به قشرهای داخلی دیوارها و سایر قطعات ساختمان گردد. از این رو ملات بند کشی باید ریزدانه و پرمایه باشد تا مانع ایجاد خاصیت جاذبه مویی شود. بند کشی به عنوان کار نهایی باید جذابیت منظر را کامل به اتمام برساند. عرض بند آجرها بر اساس طرح انتخابی ۸ تا ۲۰ میلیمتر است که باید قبلاً محل اجرای آن با برس تمیز گردد و پیش از شروع کار، مرطوب و آبپاشی شود. حداقل عیار سیمان بند کشی، شامل ۴۰۰ کیلوگرم سیمان در هر متر مکعب است، قطر سنگدانه نباید از ۱ میلی متر بیشتر باشد. مناسبترین زمان برای بند کشی قبل از سخت شدن ملات دیوارهاست (تا ۲۵ روز بعد از اجرا) در هر حال از بند کشی در هوای بسیار سرد، بسیار گرم و بارندگی باید خودداری کرد. چنانچه اجرای بند کشی در هوای بسیار سرد یا گرم الزامی باشد، اتخاذ تدابیر مخصوص بتن ریزی در هوای بسیار گرم یا سرد الزامی است. در هوای گرم، بند کشی باید از تابش مستقیم خورشید مصون بوده و با وسایل پوششی مناسب مرطوب نگه داشته شود. در هوای سرد، بند کشی باید در روزهای آفتابی بین ساعات ۱۰ الی ۱۴ صورت گیرد، از ماسه و آب گرم استفاده شود و نمای بند کشی شده با وسایل مناسب پوشانده و گرم نگه داشته شود. سرعت سفت شدن ملات با تقلیل درجه حرارت محیط، کاهش می یابد. لذا هنگام بند کشی در هوای سرد، سرعت بند کشی باید به نحوی باشد که فرصت کافی برای سفت شدن ملات قبل از شروع یخبندان وجود داشته باشد.



#### Some Points Concerning Articulation of Bricks:

- Brick fixing place on the wall should be wetted prior to fixing.
- The min. and max. depth of mortar filling behind Brick layer is 2- 4 cm.
- Mortar sand and water should be free from any organic materials.
- The most appropriate time for articulation is several weeks after Bricking.
- The area in question should be watered prior to articulation.
- The best time for using the mortar for articulation is 2.5 hours after preparation of mortar at most.
- The mortar should be kneaded for several hours prior to articulation.
- Mortar plate should not be used for kneading under no circumstances.
- The mortar should be placed on the jointing chisel and then put between two grooves.
- Wet napkin should never be used to clean the surplus mortar between grooves.
- The best time for brushing is two hours after articulation.
- If any resin is used to make the structure water-resistant, it should be dry and clean.
- Colorfull powders can be added to articulation mortar but they should not exceed 10 percent of cement weight. In addition, they should be non-alkaline and preserve their colors against sunlight in long time.
- The best temperature for articulation ranges between 5- 35 °C . facade construction should never be carried out during frost time.

#### نکاتی در مورد نحوه ی بند کشی آجرها:

- قبل از نصب آجرها محل اتصال آجر بر روی دیوار باید مرطوب گردد.
- حداقل و حداکثر ملات خور پشت آجر، بین ۲ تا ۴ سانتی متر باشد.
- بهترین دما جهت نصب، بین ۵ تا ۳۵ درجه سانتی گراد است و هرگز در زمان یخبندان نباید عملیات نمakاری انجام شود.
- ماسه و آب مورد استفاده در ملات ها باید عاری از هرگونه مواد آلی باشد.
- مناسب ترین زمان جهت بند کشی حداقل چند هفته بعد از نصب آجرها است.
- قبل از بند کشی محدوده مورد نظر باید مرطوب گردد.
- بهترین زمان برای استفاده از ملات آماده شده جهت بند کشی، حداکثر ۲.۵ ساعت می باشد.
- به منظور همگن شدن ملات مناسب برای بند کشی، حداقل چند دقیقه باید آن را ورز داد.
- هیچ گاه از صفحه ملات برای این منظور استفاده نشود.
- هنگام بند کشی باید ملات را روی قلم بند کشی قرار داد و سپس آن را بین شیار دو آجر فرو برد.
- هرگز نباید از دستمال مرطوب به منظور تمیز نمودن اضافات ملات بین شیارها استفاده نمود.
- بهترین گزینه به کار بردن برس، پس از گذشت ۲ ساعت می باشد.
- چنانچه از رزین به منظور ضد آب نمودن آجر استفاده شود باید سازه کاملاً خشک و تمیز باشد.
- به ملات بند کشی می توان پودر های رنگی اضافه نمود. اما مقدار آنها در ملات نباید از ۱۰٪ وزن سیمان تجاوز کند و علاوه بر آن باید ضد قلیا بوده و در مقابل نور، ثبات خود را در مدت حفظ نماید.



THE PREMIUM PROPERTIES OF  
AZARAKHSH FIREBRICK

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| Random Black Design                                | American Random Red Design | Dark Granite Design | Granite Design | Shamuti Design | British Random Red Design | تعداد قالب در مترمربع | تعداد در کارتن | ابعاد (میلی متر) | نام فارسی  | نام انگلیسی                 |                               |
|--|----------------------------|---------------------|----------------|----------------|---------------------------|-----------------------|----------------|------------------|--|-----------------------------|-------------------------------|
| مشکی رندوم   | آمریکایی رندوم             | گرانیتی تیره        | گرانیتی        | شاموتی         | قرمز رندوم                | Qty/m <sup>2</sup>    | Pcs/box        | Dimensions (mm)  | Name   |                             |                               |
| AP465  | AP461                      | AP462               | AP463          | AP464          | AP460                     | 200                   | 126            | 55×55×27         | پلاک ۵۵  | Plaque bricks 55            |                               |
| AP155  | AP154                      | -                   | AP152          | AP153          | AP 151                    | 100                   | 48             | 100×100×27       | پلاک ۱۰۰   | Plaque bricks 100           |                               |
| AP34   | AP32                       | AP36                | AP33           | AP31           | AP29                      | 60                    | 40             | 260×55×27        | پلاک ۲۶۰   | Plaque bricks 260           |                               |
| AP253  | AP252                      | -                   | AP251          | AP35           | AP250                     | 60                    | 20             | 260×55×50        | پلاک ۲۶۰   | Plaque bricks 260           |                               |
| AP43   | AP41                       | AP44                | AP42           | AP40           | AP38                      | 37                    | 18             | 330×70×27        | پلاک ۳۳۰   | Plaque bricks 330           |                               |
| AP274  | AP273                      | -                   | AP272          | AP271          | AP270                     | 37                    | 10             | 300×70×50        | پلاک ۳۳۰   | Plaque bricks 330           |                               |
| AP61   | AP59                       | -                   | AP60           | AP58           | AP56                      | 25                    | 12             | 200×200×27       | پلاک ۲۰۰   | Plaque bricks 200           |                               |
| Ap16/<br>AP16A                                     | -                          | -                   | -              | -              | Ap11/11g                  | 68                    | 30             | 150×85×27        | پلاک شومینه  | Fireplace Plaque bricks     |                               |
| AP198  | AP197                      | -                   | AP196          | AP195          | AP194                     | 16                    | 40             | 100-100×55×30    | ۱۰۰ L  | «L» shape Plaque bricks 100 |                               |
| AP106  | AP104                      | AP108               | AP105          | AP103          | AP101                     | 16                    | 10             | 260-130×55×30    | ۲۶۰L   | «L» shape Plaque bricks 260 |                               |
| AP115  | AP113                      | AP117               | AP114          | AP112          | AP110                     | 13                    | 8              | 330-165×70×30    | ۳۳۰L   | «L» shape Plaque bricks 330 |                               |
| AP88   | AP86                       | -                   | AP87           | AP85           | AP83                      | 34                    | 20             | 230×114×32       | کف ۲۳×۱۱   | Floor brick 230             |                               |
| AP129  | AP127                      | -                   | AP128          | AP126          | AP124                     | 34                    | 4              | 230×114×64       | کف ۲۳×۱۱   | Floor brick 230             |                               |
| AP79   | AP77                       | -                   | AP78           | AP76           | AP74                      | 16                    | 9              | 250×25×32        | کف ۲۵×۲۵   | Floor brick 250             |                               |
| AP162  | AP161                      | -                   | AP163          | AP160          | AP158                     | 16                    | 3              | 250×250×64       | کف ۲۵×۲۵   | Floor brick 250             |                               |
| AP139  | AP137                      | -                   | AP138          | AP136          | -                         | 87                    | 21             | 230×50×50        | دورستون ۸۰   | Round pillar Brick 80       |                               |
| AP215  | AP216                      | -                   | AP214          | AP218          | -                         | 110                   | 64             | 140×55×25        | دورستون ۴۷   | Round pillar Brick 47       |                               |
| AP227  | AP228                      | -                   | AP226          | AP230          | AP229                     | 16                    | 40             | 120×65×55×50     | پاستون   | Pile foot brick             |                               |
| AP221  | AP222                      | -                   | AP220          | AP224          | AP223                     | 16                    | 40             | 135×50×55×50     | سرستون   | Head Pillar brick           |                               |
| AST111   | AST113                     | -                   | AST116         | AST115         |                           | 87                    | 21             | 230×50×37        | صخره ای  | Rocky Brick                 |                               |
| در تمامی رنگ بندی ها و طرح های موجود               |                            |                     |                |                |                           | 100                   | 50             | 100×100×24       | سرامیک دکوراتیو  | Decorative ceramic brick    |                               |
| Available In any colors and designs                |                            |                     |                |                |                           |                       |                |                  | Each box of decorative bond brick (40 pcs)= 10 meters long | حاشیه دکوراتیو              | Decorative ceramic bond brick |
| هر کارتن ۴۰ عددی حاشیه برابر با ۱۰ متر طول می باشد |                            |                     |                |                |                           |                       |                |                  |  |                             |                               |
| AP484  | AP481                      | -                   | AP482          | AP483          | AP480                     | 25                    | 6              | 400×100×60       | پلاک نسوز ۴۰۰  | Plaque bricks 400           |                               |
| AP485  | AP488                      | -                   | AP487          | AP489          | AP486                     | 25                    | 12             | 400×100×30       | پلاک نسوز ۴۰۰  | Plaque bricks 400           |                               |

Quantity per square meter include 1cm joint

تعداد در متر مربع با احتساب یک سانتی متر بندکشی در طرفین محاسبه شده است

| مشخصات آجر             |                                |                           |                             |                              |                                | تعداد قالب در مترمربع | تعداد در کارتن | ابعاد (میلی متر) | نام فارسی         | نام انگلیسی                       |
|------------------------|--------------------------------|---------------------------|-----------------------------|------------------------------|--------------------------------|-----------------------|----------------|------------------|-------------------|-----------------------------------|
| Brick Specification    |                                |                           |                             |                              |                                | Qty/m <sup>2</sup>    | Pcs/box        | Dimensions (mm)  | Name              |                                   |
| Reddish Brown          | Dark Brown                     | Gray                      | Grayish White               | Matt Black                   | Shiny black                    | 50                    | 36             | 280×60×19        | پلاک نسوز ۲۸۰     | Modern<br>Plaque brick<br>280     |
| قرمز قهوه ای           | قهوه ای تیره                   | طوسی                      | سفید متمایل به طوسی         | مشکی مسی                     | مشکی براق                      |                       |                |                  |                   |                                   |
| AB41001                | AB31001                        | AB27001                   | AB22001                     | AB11001                      | AB01001                        |                       |                |                  |                   |                                   |
| Arghavan Reddish Brown | Arghavan dark Brown            | Antique gray              | Antique Grayish White       | Antique matt Black           | Keyhan matt Black              | 50                    | 36             | 280×60×19        | پلاک نسوز ۲۸۰     | Modern<br>Plaque brick<br>280     |
| قرمز قهوه ای ارغوان    | قهوه ای تیره ارغوان            | طوسی آنتیک                | سفید متمایل به طوسی آنتیک   | مشکی مات آنتیک               | مشکی مات کیهان                 |                       |                |                  |                   |                                   |
| AB41002                | AB31002                        | AB27005                   | AB22005                     | AB11005                      | AB11013                        |                       |                |                  |                   |                                   |
| Antique Reddish Brown  | Keyhan Reddish Brown           | Keyhan Antique dark Brown | Arghavan Antique dark Brown | Antique dark Brown           | Keyhan dark Brown              | 50                    | 36             | 280×60×19        | پلاک نسوز ۲۸۰     | Modern<br>Plaque brick<br>280     |
| قرمز قهوه ای آنتیک     | قرمز قهوه ای کیهان             | قهوه ای تیره آنتیک کیهان  | قهوه ای تیره آنتیک ارغوان   | قهوه ای تیره آنتیک           | قهوه ای تیره کیهان             |                       |                |                  |                   |                                   |
| AB41005                | AB41013                        | AB31007                   | AB31006                     | AB31005                      | AB31013                        |                       |                |                  |                   |                                   |
| Arghavan Antique Red   | Antique Red                    | Arghavan Red              | Red                         | keyhan Antique Reddish Brown | Arghavan Antique Reddish Brown | 50                    | 36             | 280×60×19        | پلاک نسوز ۲۸۰     | Modern<br>Plaque brick<br>280     |
| قرمز آنتیک ارغوان      | قرمز آنتیک                     | قرمز ارغوان               | قرمز                        | قرمز قهوه ای آنتیک کیهان     | قرمز قهوه ای آنتیک ارغوان      |                       |                |                  |                   |                                   |
| Ab42006                | AB42005                        | AB41002                   | AB42001                     | AB41007                      | AB41006                        |                       |                |                  |                   |                                   |
| Granite White          | Arghavan Reddish Brown         | Reddish Brown             | Dark Brown                  | Gray                         | Antique Grayish White          | 37                    | 28             | 330×70×19        | پلاک نسوز ۳۳۰     | Modern<br>Plaque brick<br>330     |
| سفید گرانیتی           | قرمز قهوه ای ارغوان            | قرمز قهوه ای              | قهوه ای تیره                | طوسی                         | سفید مات آنتیک                 |                       |                |                  |                   |                                   |
| AB51301                | AB41302                        | AB41301                   | AB31301                     | AB27301                      | AB22301                        |                       |                |                  |                   |                                   |
| Dark Brown             | Effected Antique gray          | Antique gray              | Gray                        | Antique Grayish White        | Grayish White                  | 24                    | 20             | 200×200×19       | پلاک نسوز ۲۰۰     | Modern<br>Plaque brick<br>200     |
| قهوه ای تیره           | طوسی آنتیک افکت دار            | طوسی آنتیک                | طوسی                        | سفید متمایل به طوسی آنتیک    | سفید متمایل به طوسی            |                       |                |                  |                   |                                   |
| AB31051                | AB27056                        | AB27055                   | AB27051                     | AB22055                      | AB22051                        |                       |                |                  |                   |                                   |
|                        | Effected Antique Reddish Brown | Antique Reddish Brown     | Reddish Brown               | Effected Antique dark Brown  | Antique dark Brown             | 24                    | 20             | 200×200×19       | پلاک نسوز ۲۰۰     | Modern<br>Plaque brick<br>200     |
|                        | قرمز قهوه ای آنتیک افکت دار    | قرمز قهوه ای آنتیک        | قرمز قهوه ای                | قهوه ای تیره آنتیک افکت دار  | قهوه ای تیره آنتیک             |                       |                |                  |                   |                                   |
|                        | AB41056                        | AB41055                   | AB41051                     | AB31056                      | AB31055                        |                       |                |                  |                   |                                   |
|                        |                                |                           |                             | Reddish Brown                | Dark Brown                     | 24                    | 4              | 200×900×19       | پلاک نسوز ۲۰۰×۹۰۰ | Modern<br>Plaque brick<br>900×200 |
|                        |                                |                           |                             | قرمز قهوه ای                 | قهوه ای تیره                   |                       |                |                  |                   |                                   |
|                        |                                |                           |                             | AB41251                      | AB31251                        |                       |                |                  |                   |                                   |

| تعداد در متر مربع  | تعداد در متر طول | تعداد در کارتن | ابعاد (میلی متر) | نام فارسی                     | نام انگلیسی                                       | کد آجر |
|--------------------|------------------|----------------|------------------|-------------------------------|---|--------|
| Qty/m <sup>2</sup> | Qty/m.long       | Pcs/box        | Dimensions (mm)  | Name                          |   | Code   |
| 54                 | -                | 30             | 280×70×25        | رستیک آمریکایی                | Rustic Brick - American design                    | AR20   |
| -                  | 13               | 10             | 280-140×70×25    | رستیک آمریکایی ال             | «L» shape Rustic Brick - American design          | LAR20  |
| 100                | -                | 52             | 200×50×25        | رستیک آمریکایی                | Rustic Brick - American design                    | AR80   |
| -                  | 17               | 28             | 200-100×50×25    | رستیک آمریکایی ال             | «L» shape Rustic Brick - American design          | LAR80  |
| 100                | -                | 70             | 100×100×25       | رستیک آمریکایی                | Rustic Brick - American design                    | AR43   |
| 58                 | -                | 26             | 200×100×25       | رستیک آمریکایی                | Rustic Brick - American design                    | AR02   |
| -                  | 10               | 14             | 200-100×100×25   | رستیک آمریکایی ال             | «L» shape Rustic Brick - American design          | LAR02  |
| 27                 | -                | 12             | 200×200×25       | رستیک آمریکایی                | Rustic Brick - American design                    | AR52   |
| 54                 | -                | 11             | 280×70×100       | رستیک آمریکایی                | Rustic Brick - American design                    | AR200  |
| 100                | -                | 28             | 100×100×50       | رستیک آمریکایی                | Rustic Brick - American design                    | AR35   |
| 27                 | -                | 7              | 200×200×50       | رستیک آمریکایی                | Rustic Brick - American design                    | AR62   |
| 54                 | -                | 18             | 280×70×50        | رستیک آمریکایی                | Rustic Brick - American design                    | AR30   |
| 100                | -                | 28             | 100×100×50       | رستیک آمریکایی کونیک پرطاووسی | Conic Rustic Brick - American peacock design      | AR102  |
| 100                | -                | 52             | 200×50×25        | رستیک آمریکایی چهاررنگ        | 4 Colors Rustic Brick - American design           | AR88   |
| -                  | 17               | 32             | 200-100×50×25    | رستیک آمریکایی چهاررنگ ال     | 4 Colors «L» shape Rustic Brick - American design | LAR88  |
| 54                 | -                | 30             | 280×70×25        | رستیک آمریکایی چهاررنگ        | 4 Colors Rustic Brick - American design           | AR27   |
| -                  | 13               | 10             | 280-140×70×25    | رستیک آمریکایی چهاررنگ ال     | 4 Colors «L» shape Rustic Brick - American design | LAR27  |
| 27                 | -                | 12             | 200×200×25       | رستیک آمریکایی چهاررنگ        | 4 Colors Rustic Brick - American design           | AR57   |
| 58                 | -                | 26             | 200×100×25       | رستیک آمریکایی چهاررنگ        | 4 Colors Rustic Brick - American design           | AR95   |
| -                  | 10               | 14             | 200-100×100×25   | رستیک آمریکایی چهاررنگ ال     | 4 Colors «L» shape Rustic Brick - American design | LAR95  |
| 100                | -                | 70             | 100×100×27       | رستیک آمریکایی چهاررنگ        | 4 Colors Rustic Brick - American design           | AR46   |
| 44                 | -                | 30             | 280×70×25        | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR19   |
| -                  | 13               | 10             | 280-140×70×25    | رستیک شاموتی ال               | «L» shape Rustic Brick - Shamuti design           | LAR19  |
| 85                 | -                | 52             | 200×50×25        | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR81   |
| -                  | 17               | 32             | 200-100×50×25    | رستیک شاموتی ال               | «L» shape Rustic Brick - Shamuti design           | LAR81  |
| 44                 | -                | 24             | 200×100×25       | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR04   |
| 23                 | -                | 12             | 200×200×25       | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR51   |
| 100                | -                | 70             | 100×100×25       | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR42   |
| 44                 | -                | 18             | 280×70×5         | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR29   |
| 25                 | -                | 12             | 200×200×27       | رستیک شاموتی                  | Rustic Brick - Shamuti design                     | AR51   |
| 27                 | -                | 12             | 200×200×25       | رستیک مشکی                    | Rustic Brick - Black design                       | AR53   |
| 100                | -                | 52             | 200×50×25        | رستیک مشکی                    | Rustic Brick - Black design                       | AR83   |
| 100                | -                | 70             | 100×100×25       | رستیک مشکی                    | Rustic Brick - Black design                       | AR44   |
| 58                 | -                | 26             | 200×100×25       | رستیک مشکی                    | Rustic Brick - Black design                       | AR06   |
| 54                 | -                | 30             | 280×70×25        | رستیک مشکی                    | Rustic Brick - Black design                       | AR21   |
| -                  | 13               | 10             | 280-140×70×25    | رستیک مشکی ال                 | «L» shape Rustic Brick - Black design             | LAR21  |
| 100                | -                | 28             | 100×100×50       | رستیک مشکی                    | Rustic Brick - Black design                       | AR39   |
| 85                 | -                | 52             | 200×50×25        | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR300  |
| 44                 | -                | 30             | 280×70×25        | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR301  |
| 58                 | -                | 24             | 200×100×25       | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR302  |
| 60                 | -                | 28             | 350×50×25        | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR303  |
| 25                 | -                | 12             | 200×200×25       | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR304  |
| 100                | -                | 70             | 100×100×25       | رستیک هلندی طوسی              | Rustic Brick - Gray Dutch design                  | AR305  |

| کد آجر | نام انگلیسی  | نام فارسی                 | ابعاد (میلی متر) | تعداد در کارتن | تعداد در متر طول | تعداد در متر مربع  |
|--------|--|---------------------------|------------------|----------------|------------------|--------------------|
| Code   | Name   |                           | Dimensions (mm)  | Pcs/box        | Qty/m.long       | Qty/m <sup>2</sup> |
| LAR340 | «L» shape Rustic Brick - Gray Dutch design               | ال رستیک هلندی طوسی       | 280-140×70×25    | 10             | 13               | -                  |
| AR341  | «L» shape Rustic Brick - Gray Dutch design               | ال رستیک هلندی طوسی       | 200-100×50×25    | 32             | 17               | -                  |
| AR306  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 280×70×25        | 30             | -                | 44                 |
| AR307  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 200×50×25        | 52             | -                | 85                 |
| AR308  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 200×100×25       | 24             | -                | 58                 |
| AR309  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 350×50×25        | 28             | -                | 60                 |
| AR310  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 100×100×25       | 70             | -                | 100                |
| AR311  | Rustic Brick - Gray Dutch design - Low shadow            | رستیک هلندی طوسی کم گل    | 200×200×25       | 12             | -                | 25                 |
| LAR344 | «L» shape Rustic Brick - Gray Dutch design - Low shadow  | ال رستیک هلندی طوسی کم گل | 280-140×70×25    | 10             | 13               | -                  |
| LAR345 | «L» shape Rustic Brick - Gray Dutch design - Low shadow  | ال رستیک هلندی طوسی کم گل | 200-100×50×25    | 32             | 17               | -                  |
| LAR346 | «L» shape Rustic Brick - Gray Dutch design - Low shadow  | ال رستیک هلندی طوسی کم گل | 200-100×100×25   | 14             | 10               | -                  |
| LAR347 | «L» shape Rustic Brick - Gray Dutch design - Low shadow  | ال رستیک هلندی طوسی کم گل | 350-175×50×25    | -              | 17               | -                  |
| AR312  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 280×70×25        | 30             | -                | 44                 |
| AR313  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 200×50×25        | 52             | -                | 85                 |
| AR314  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 200×100×25       | 24             | -                | 58                 |
| AR315  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 350×50×25        | 28             | -                | 60                 |
| AR316  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 100×100×25       | 70             | -                | 100                |
| AR317  | Rustic Brick - Gray Dutch design - High shadow           | رستیک هلندی طوسی پرگل     | 200×200×25       | 12             | -                | 25                 |
| LAR348 | «L» shape Rustic Brick - Gray Dutch design - High shadow | ال رستیک هلندی طوسی پرگل  | 280-140×70×25    | 10             | 13               | -                  |
| LAR349 | «L» shape Rustic Brick - Gray Dutch design - High shadow | ال رستیک هلندی طوسی پرگل  | 200-100×50×25    | 32             | 17               | -                  |
| LAR350 | «L» shape Rustic Brick - Gray Dutch design - High shadow | ال رستیک هلندی طوسی پرگل  | 200-100×100×25   | 14             | 10               | -                  |
| LAR351 | «L» shape Rustic Brick - Gray Dutch design - High shadow | ال رستیک هلندی طوسی پرگل  | 350-175×50×25    | -              | 17               | -                  |
| AR318  | Rustic Brick - British design                            | رستیک انگلیسی             | 280×70×25        | 34             | -                | 54                 |
| AR319  | Rustic Brick - British design                            | رستیک انگلیسی             | 200×50×25        | 52             | -                | 100                |
| AR320  | Rustic Brick - British design                            | رستیک انگلیسی             | 200×100×25       | 26             | -                | 58                 |
| AR321  | Rustic Brick - British design                            | رستیک انگلیسی             | 350×50×25        | 28             | -                | 73                 |
| AR322  | Rustic Brick - British design                            | رستیک انگلیسی             | 100×100×25       | 70             | -                | 100                |
| AR323  | Rustic Brick - British design                            | رستیک انگلیسی             | 200×200×25       | 12             | -                | 27                 |
| LAR351 | «L» shape Rustic Brick - British design                  | ال رستیک انگلیسی          | 280-140×70×25    | 10             | 13               | -                  |
| LAR352 | «L» shape Rustic Brick - British design                  | ال رستیک انگلیسی          | 200-100×50×25    | 28             | 17               | -                  |
| LAR353 | «L» shape Rustic Brick - British design                  | ال رستیک انگلیسی          | 200-100×100×25   | 14             | 10               | -                  |
| LAR354 | «L» shape Rustic Brick - British design                  | ال رستیک انگلیسی          | 350-175×50×25    | -              | 17               | -                  |

Quantity per square meter include 1cm joint

تعداد در متر مربع با احتساب یک سانتی متر بندکشی در طرفین محاسبه شده است

#### محاسبه وزن آجرها:

- هر کدام از آجرها وزن مخصوص مختص به خود را دارند.
- میانگین وزن حدودی مخصوص تمامی آجرها را برای محاسبه وزن بصورت حدودی ۱/۹ دینر می گیریم:
- وزن هر قالب آجر = ابعاد آجر (طول×عرض×ضخامت) × ۱/۹ (میانگین وزن مخصوص آجر)
- محاسبه وزن مخصوص آجرهای L = تمامی ابعاد (مضرب دو بال آجر×عرض×ضخامت) × ۱/۹
- وزن هر کارتن آجر = وزن هر قالب آجر×تعداد قالب ها در هر کارتن
- وزن هر متر مربع یا متر طول آجر = وزن هر قالب آجر×تعداد قالب ها در هر متر مربع یا طول

#### فرمول های تبدیل واحد آجر های L:

- تبدیل متر طول به متر مربع:
- تبدیل متر مربع به متر طول:

$$\text{متر طول} \times \text{متر مربع} = \frac{L}{L+L} \rightarrow \text{مجموع دو بال}$$

این اعلام وزن حدودی است و ممکن است کمی تغییرات داشته باشد

#### محاسبه تعداد قالب آجر در هر متر مربع:

- تعداد قالب در هر متر مربع بدون بندکشی (آجرها بدون بندکشی کاملاً جذب کار شود):

$$x \div 10000 = \text{تعداد قالب} \times \text{عرض} = X$$

در آجرهای با رنگ تیره بهتر است بدون بند تعداد را محاسبه نمایید.

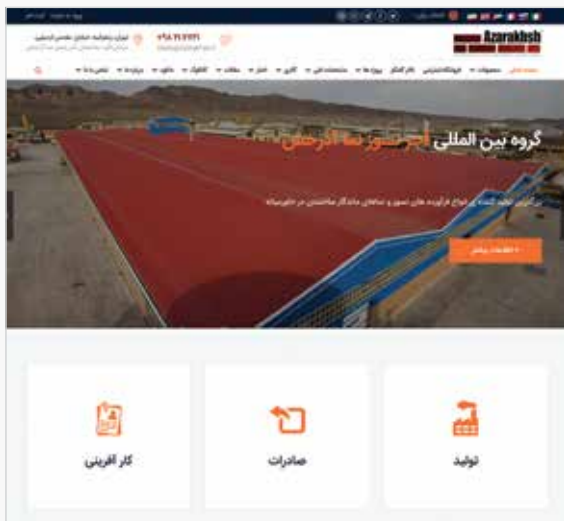


تمامی مصالح ساختمانی، نسبت به تغییر دما و رطوبت واکنش نشان داده و تغییر حجم پیدا می‌کنند. فشارهای ناشی از این تغییرات منجر به پدید آمدن چنین پدیده‌های مضر در ساختمان شده و باید تدابیری اندیشید تا حرکات دیفرانسیلی در ساختمان کاهش یابد. البته سیستم درزهای انبساطی تا حدودی می‌تواند ظرفیت ترکها و مشکلات ناشی از آن را کاهش دهد، اما در بیشتر ساختمان‌ها پیش بینی دقیق و الزام کاری بسیار دشوار است که طراحان و مجریان را در پایان و بعد از اجرای پروژه دچار مشکل می‌کند. این تغییرات به خواص مصالح ساختمانی که بسیار متنوع هستند بستگی دارد. یکی از عوامل تخریب کننده که مصالح ساختمانی را در معرض خطر قرار می‌دهد رطوبت است و این عامل آجرهای رسی را بیشتر از سایر مصالح تهدید می‌کند. زیرا آجرهای رسی به آهستگی در گذر زمان و تحت تأثیر رطوبت منبسط شده و این انبساط بسیار مشهود بوده و برگشت ناپذیر است. میزان تخریب در هر آجر به مواد خام و همچنین میزان درجه حرارت در هنگام پخت بستگی دارد. به دلیل وجود این مشکلات، از آجرهای رسی نمی‌توان به منظور تزئین نمای ساختمان در مناطقی که آب و هوای مرطوب و با تغییر دمای زیاد در شب و روز دارند، استفاده کرد. آجر نسوز آذرخش به دلیل وجود عناصر خاص نظیر  $Al_2O_3 - SiO_2$  در ترکیبات آن و همچنین کلسینه شدن مواد خام در دماهای بالا قبل از قالب گیری و درجه حرارت بالا در هنگام پخت، محصول نهایی را با انسجام قابل توجهی در مقابل سایر مصالح نما به وجود می‌آورد که در هر شرایط آب و هوایی و در مقابل هر گونه نوسانات دما و رطوبت تغییر ناپذیر است و از طول عمر بالایی برخوردار بوده و به جهت مقاوم بودن در مقابل ساییش و فرسایش، ماندگاری آن را دهها برابر بیشتر از آجرهای معمولی می‌کند.

All construction materials react to temperature and moisture change and their volume consequently change. Pressures due to such volume changes result in adverse phenomena in buildings. For this reason, some actions should be taken to reduce these differential changes (movements). Of course, expansion joint systems may reduce crack potential and the appertaining problems to some extent. However, accurate prediction of these changes is very difficult for most of the buildings since they encounter the designers and executors with some problems at the conclusion or post-construction stages. In general, these changes depend on the properties of construction materials. One of the destructive factors which jeopardize construction materials is moisture. This factor most threatens clayey **Bricks** rather than other construction materials since they dilate gradually. This dilation is very considerable and irreversible. Amount of destruction for any **Brick** depends on its raw materials and the temperature of baking. Clayey **Bricks** cannot be used for facade ornamentation in places with high moisture or drastic temperature change between day and night because of mentioned problem. Due to having some special combination of compounds such as  $Al_2O_3$  and  $SiO_2$  as well as calcinations of raw materials in high temperatures prior to molding and during baking, **Azarakhsh** refractory **Bricks** are produced with considerable coherence rather than other construction materials. These products are unchangeable under any climatic conditions, temperature and moisture fluctuation. Therefore, its durability is tens of times higher than ordinary **Bricks** due to resistance to abrasion and erosion.



برای دریافت جزئیات و آدرس های مربوط به تصاویر داخل کاتالوگ و سایر پروژه های انجام شده با آجر آذرخش ، با مراجعه به منوی (پروژه ها) در سایت آذرخش می توانید در هر گوشه از ایران پهناور که باشید از نزدیک ترین پروژه ها به محل زندگی تان بازدید نمایید .



مجموعه حاضر با هدف بالا بردن سطح آگاهی شما در مورد آجر و به منظور اطلاع رسانی بیشتر و انتخابی بهتر تهیه گردیده است، چنانچه نیاز به اطلاعات بیشتری در این زمینه است لطفاً به وب سایت این شرکت با نشانی ذیل مراجعه نمایید.

The present is prepared for increasing your knowledge about the execution and more notification and better choice. In case you needed further information in this regard please refer to our website:

**WWW.AZARAKHSH.IR**

سامانه پیامک انتقادات و پیشنهادات: SMS ۳۰۰۰۲۷۲۱

هرگونه استفاده از نام، مطالب، تصویر و طرح های این کاتالوگ بدون اجازه ی کتبی از شرکت آذرخش، ممنوع و پیگرد قانونی دارد.

# Azarakhsh

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# '22

Azarakhsh Offices Address

