

# **INDEX**





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#### **ABOUT KAPHS**

**KAPHS** is a Swiss Company founded in 2003 by Mr. Anil Sareen.

Our family-owned operation prides itself in specializing in the engineering, manufacturing and supply of high-end Metal & Glass products for Façade application as well as Interior Design purposes.

With a focus on the Middle-Eastern market and its requirements, **KAPHS** has built a diversified offering of Architectural Products in line with the region's evolving demands and technology.

Thanks to our extensive experience working with Architects, Interior Designers and Contractors, we aim to always offer our customers the most effective and appropriate solution to their needs.

**KAPHS** provides In-House Engineering throughout the life of a project until completion to ensure the utmost satisfaction to our clients.

Our trusted partnerships with European Manufacturers, whom we have represented for over two decades in the Middle-Eastern region has enabled us to accomplish a remarkable portfolio of landmark projects across the Gulf countries.

As a result of our local fabrication abilities, **KAPHS** offers ready-to-install material to support our customers.





#### **PARTNERS**



**RAU STRECKGITTER**, located in Sinsheim, Germany looks back on over 60 years of know-how in the production of **Expanded Metal Mesh**.



#### **HAVER & BOECKER**



HAVER & BOECKER is a family-managed company with its headquarters in Oelde, Germany. Founded in 1887 the Haver & Boecker OHG comprises the Wire Weaving and Machinery Division.





#### **PARTNERS**

# LAM3ERTS

Founded in 1887, **LAMBERTS** has devoted themselves to the manufacturing of **Cast Glass**. The family-owned company is the only European cast glass manufacturer not bound to any group and is one of the biggest factories in Europe with modern facilities and state-of-the art machinery.

a c r y l i c
c o u t u r e

ACRYLIC COUTURE is Acrylic Glass in a completely new light. Showcasing a collection of meticulously selected premium quality and ethically sourced metallic fabrics, decorative particulates encased in crystal-clear high-quality acrylic glass.









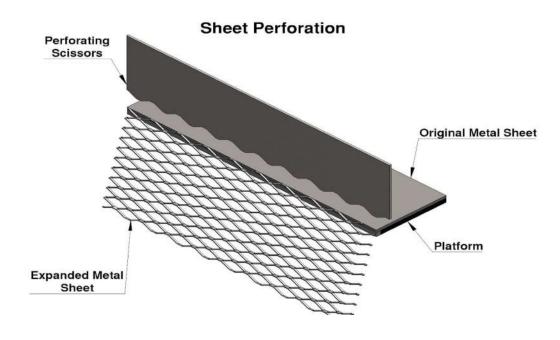
**Expanded Metal Mesh** is distinguished and contributes to its architectural application due to its 3 dimensional shape and ease of workability as a result of its rigidity. Attributable to the expansion process rather then punching, no material is scrapped during manufacturing, allowing an absolutely cost-effective product.



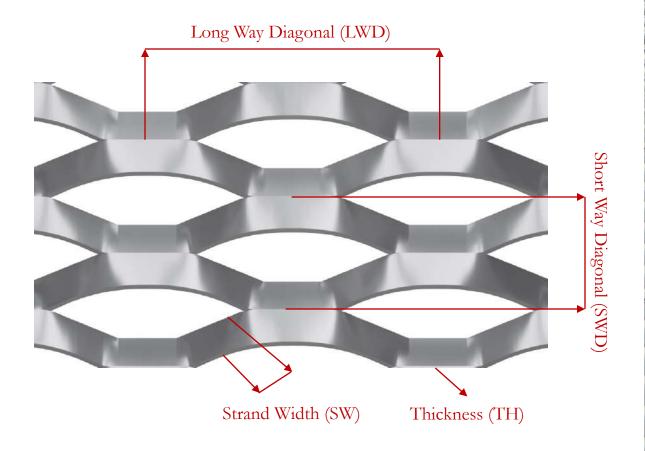
#### EXPANDED METAL MESH

#### Introduction

**Expanded Metal Mesh** is obtained by expanding by a process where the solid sheet of metal is simultaneously slit and stretched, expanding the slits into diamond shaped, square, round or hexagonal uniform openenings.



Technical Information





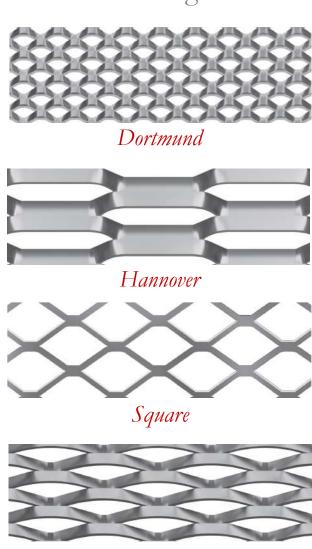


Product Range

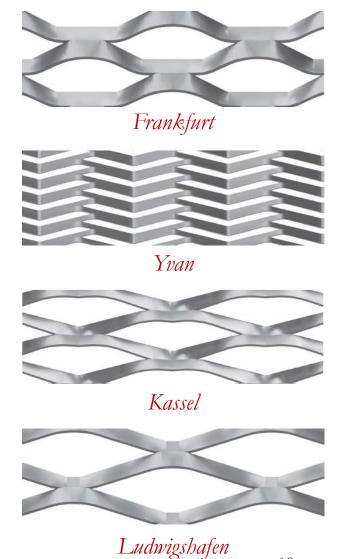
**KAPHS** offers over 200 combinations of different mesh types and can be produced in a variety of metals such as: Aluminium, Stainless-Steel, Mild-Steel, Galvanized Steel, Copper and Brass.

Mesh types can be produced in thicknesses ranging from 0.5mm up to 5mm.





Koln



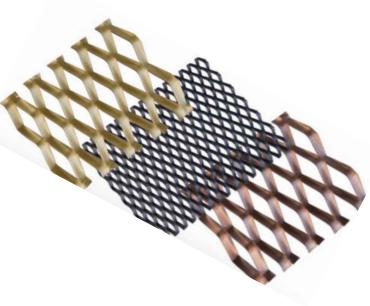


#### Surface Treatments

#### Powdercoating

At **KAPHS**, we know that the designing high-end façades and interior finishes requires a superior standard of protection. Our material can be provided with super durable powdercoatings encompassing the complete RAL chart and carrying up to 25-year guarantess on product performances.

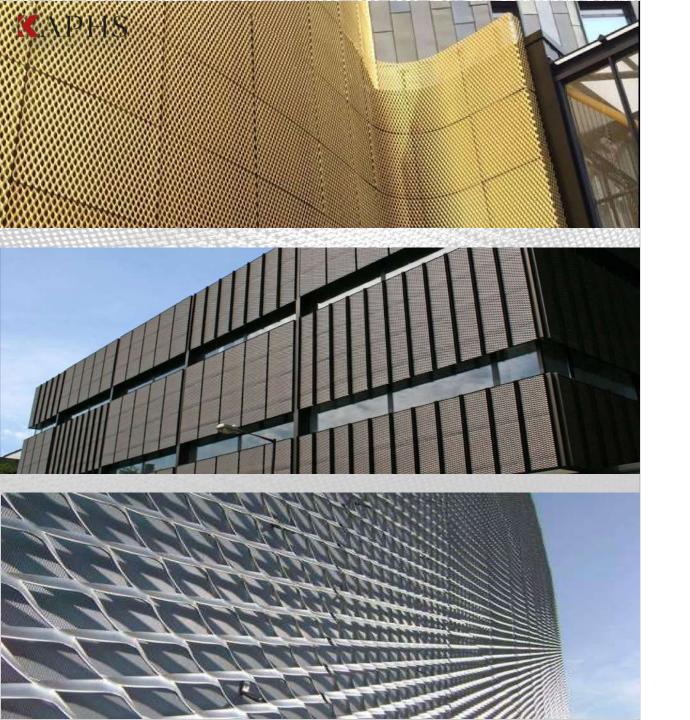






#### Anodizing

Anodizing is an electrochemical process which converts the metal surface into a decorative, durable, corrosion-resistant, wear-resistant oxide layer. This aluminium oxide is not applied to the surface like coating or plating, but is fully integrated with the underlying aluminium substrate. It has a highly ordered, porous structure which allows for secondary processes such as colouring.

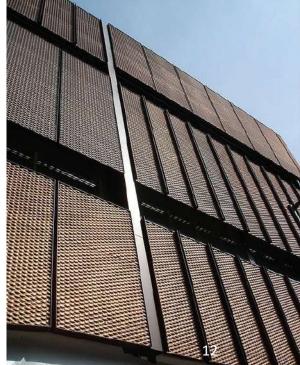


#### Façade Application

**Expanded Metal Mesh** is an economic, durable, and sustainable product, that meets the key performance factors for exterior façade cladding, sunscreens and balustrades for new or existing buildings retrofitting.

The openings in the material allow air and light to flow and shine through into the building, while still providing a protective screen from harsher winds and light.





#### Interior Wall Cladding Application

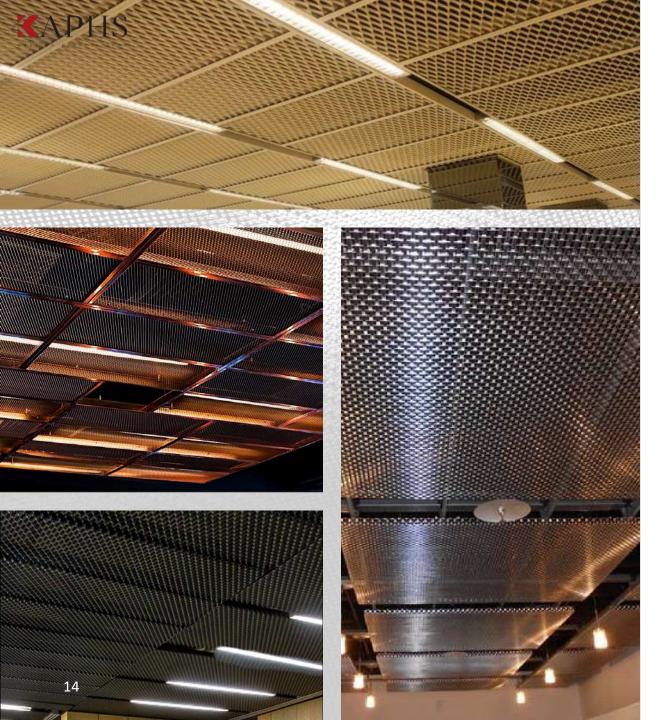
**Expanded Metal Mesh** guarantees elegance and acoustic comfort to the environment depending on their architectural application. As materials for interior design objects, they ensure excellent resistance and flexibility of use. In addition, they turn out to be a solid and robust evergreen product that does not fear the passage of time.

Modern, sophisticated and dynamic, expanded metal systems create a unique aesthetic, as well as a visual continuity of lines and shapes with the architectural element they cover.









## Ceiling Application

**Expanded Metal Mesh** sheets is extremely functional when used as false ceilings. They hide ventilation systems and sprinkler systems, while ensuring safety and passage of air. They are ideal for creating and innovating interior furnishing design and for giving new light and vitality to any space.





Frameless Bracket Fixing Systems







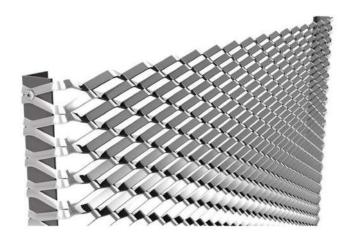






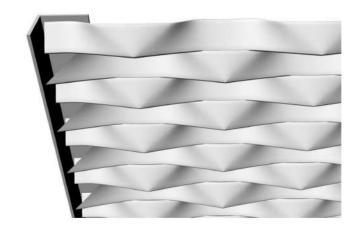


Framed Fixing System

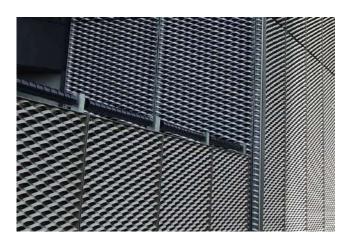














#### Silicon Central Mall

The design of the Silicon Central Mall was inspired by the shapes found in an Oasis and the five plazas resemble the five elements of an oasis: The Cave, The Canyon, The Forest, The Lagoon and The Mirage. The plazas, which feature a free-form shading structure, are connected by passageways which are covered by a diagrid roof light.

The entirety of the façade is cladding with 150mm Longbond Mesh with a total area of 40'000 m<sup>2</sup>.

Location: Silicon Oasis, Dubai - UAE

Client: Lulu Group International

Architect: Design International









# **Dubai Mall Zabeel Expansion**

The bridge of the Dubai Mall was completed in 2019 and was designed by BSBG. It uses **RAU Expanded Metal Mesh** supplied by **KAPHS**, offering a modern interpretation of the traditional Middle-Eastern Mashrabiya. Widely used in cities with rough weather conditions, the metal sheets absorb heat while allowing cool air into the building.

Location: Dubai - UAE

Client: Emaar

Architect: BSBG





#### Marina Gate Tower 3

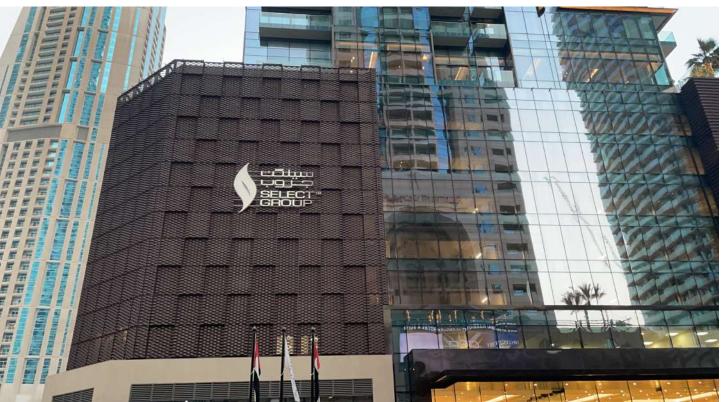
With its upscale features, high-quality finishes, and superior architectural design, Marina Gate 3 provides a luxurious living experience in the heart of one of Dubai's most sought-after neighbourhoods.

The car park of the building is cladding by 400mm rounded mesh leading to 20% transparency.

Location: Marina, Dubai - UAE

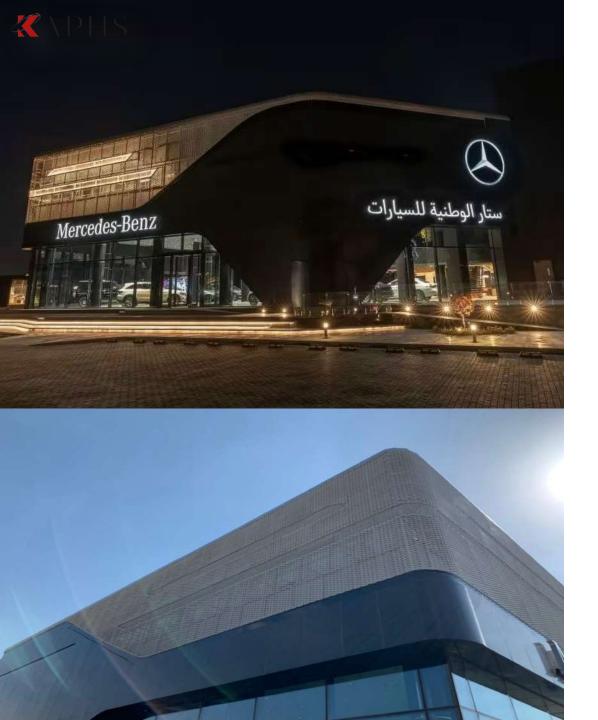
Client: Select Group

Architect: Aedas









#### Mercedes-Benz Showroom

Working closely with Mercedes-Benz design team, **KAPHS** has supplied **Expanded Metal Mesh** used as a double skin offices.

The entirety of the façade is cladding with 150mm Longbond Mesh with a total area of 700 m<sup>2</sup>. The mesh is placed in front of the glazing area to provide shading as well as reduce heat transmission.

Location: Cairo - Egypt

Client: Mercedes-Benz

Architect: Ratsnorb



#### **DIFC Gate Avenue**

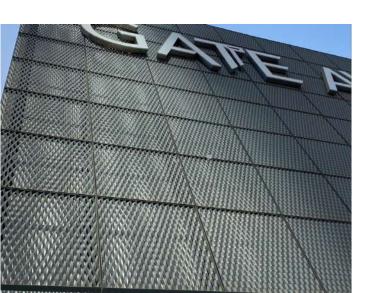
The DIFC the Gate Avenue is a unique combination of an urban landscape on top of a pristine retail environment. The Gate Avenue runs along the central axis of the site, connecting and catering to the surrounding office, hotel and residential communities; by allowing for leisure, networking and relaxation. RMJM selected our 150mm Longbond Expanded Metal Mesh to clad the retail area facade. The orientation of the mesh differs from standard application and allows for increased transparency when viewed from a higher traffic density area.

Location: DIFC, Dubai - UAE

Client: DIFC

Architect: RMJM











## Mercedes-Benz Showroom

Working closely with Mercedes-Benz design team, **KAPHS** has supplied **Expanded Metal Mesh** used as a double skin offices.

The entirety of the façade is cladding with 150mm Longbond Mesh with a total area of 700 m<sup>2</sup>. The mesh is placed in front of the glazing area to provide shading as well as reduce heat transmission.

Location: 6 October - Egypt

Client: Mercedes-Benz

Architect: Ratsnorb









#### **Tiara United Towers**

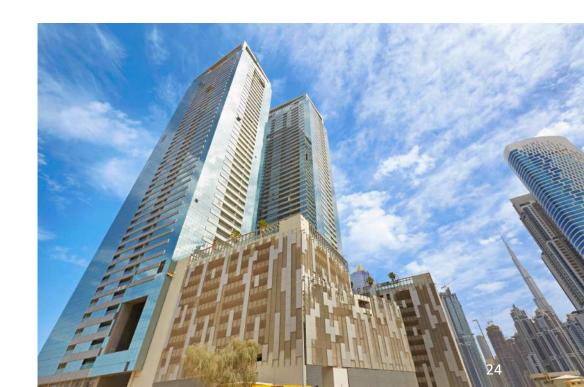
RAU Expanded Metal Mesh was a fitting choice for the Tiara United Towers residential car park facility in Business Bay. Here composed in a mosaic-like design on the façade, this metal structure was chosen by the architects of ADPI for its ability to increase ventilation and provide adequate shading. In order to create a bird mesh screen aesthetic, a smaller 82mm rounded mesh was selected.

Location: Business Bay, Dubai - UAE

Client: Wasl Properties

Architect: ADPi







# **Edafat Coffee Shop**

The façade of the Edafat coffee shop is composed of 6 meter high panels of 100mm Longbond **Expanded Metal Mesh** installed in a triangular fashion creating a feeling of depth. The smaller mesh type works very well to conceal the curtain wall and works in combination with lighting elements allowing for a diffused lighting aesthetic.

Location: Riyadh - KSA

Client: Edafat

Architect: NA







#### The Galleria Mall

The Galleria on Al Maryah Island is conceived to be the ultimate fashion, luxury retail and dining destination in the Middle East. Located on Al Maryah Island in Abu Dhabi, The Galleria combines the latest trends in fashion and dining in a modern, vibrant and striking waterfront environment.

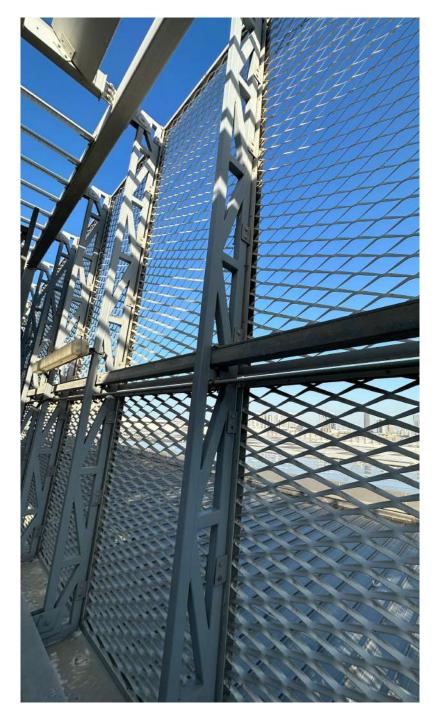
**KAPHS** supplied over 10'000 m2 of 200mm Diamond Expanded Metal Mesh for the mechanical canopy area.

Location: Al Maryah Island, Abu Dhabi - UAE

Client: Al Habtoor

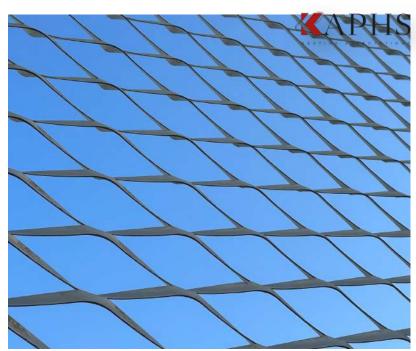
Architect: Elkus Manfredi Architects











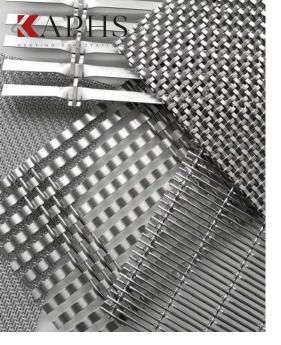




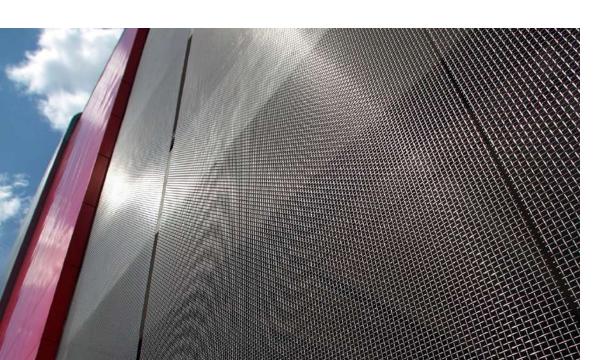
# PROJECT REFERENCES

Project	Location	Client	Architect	M <sup>2</sup> Area	Application
Sea World	Abu Dhabi - UAE	Miral	Faithful + Gould	4'000	Ventilated Façade
Al Mariah Central Mall	Abu Dhabi - UAE	Gulf Related	Elkus Manfredi	7'262	Canopy
Bluewaters Residences	Dubai - UAE	Meraas	10 Design	11'000	Canopy
Silicon Central Mall	Dubai - UAE	Lulu Group	Design International	40 <b>'</b> 000	Façade
Marina Gate Tower 3	Dubai - UAE	Select Group	Aedas	3'500	Ventilated Façade
DIFC Gate Avenue	Dubai - UAE	DIFC	RMJM	1'000	Cladding
Dubai Mall Zabeel Expansion	Dubai - UAE	Emaar	BSBG	1'000	Cladding
Al Ghurair Villas	Dubai - UAE	Al Ghurair Family	RCR Arquitectes	14'000	Cladding
Mercedes Benz Showrooms	Cairo — Egypt	Mercedes-Benz	Ratnsorb	2'000	Double Skin
STC Headquarter	Riyadh - KSA	STC	Khatib & Alami	430	Ventilated Façade
Rayban Stores	Dubai - UAE	Ray-Ban	Storemotion	Multiple	Interior Cladding
Manyata Techpark	Bangalore - India	Manyata	RSP India	2'000	Ventilated Façade
Adidas Showrooms	Dubai – UAE	Adidas	Adidas	Multiple	Suspended Ceiling









#### Introduction

Woven Wire Mesh offers Architects a multitude of design options for façades combining aesthetic and functional features.

A wide range of different meshes can enhance the appearance of a building, giving it distinct character.

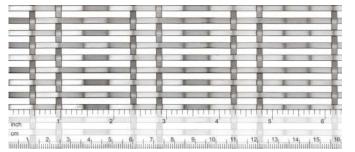
Depending on lighting conditions and viewing angle, the material can appear transparent or opaque. Light, shade and sunshine are reflected on the surface of the mesh, creating a shimmering metallic effect.

Manufactured from high-quality stainless steel, our meshes offer corrosion resistance requiring minimal maintenance. Tried and tested tensioning systems guarantee optimum safety and ease of installation.

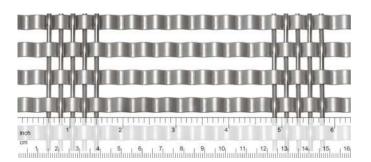




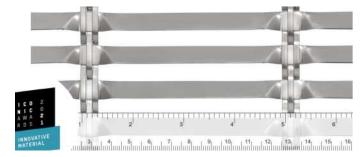
#### Product Range



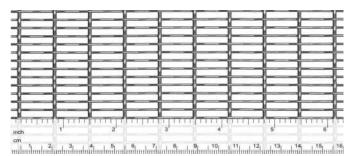
LARGO-PLENUS 2047 | Weight: 5.1 kg/m<sup>2</sup> | Open area: 43%



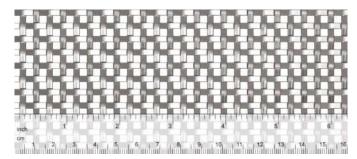
**LARGO-NOVA 2032** | Weight:  $6.6 \text{ kg/m}^2$  | Open area: 40%



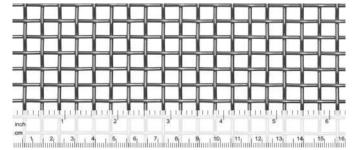
**LARGO-TWIST 2045** | Weight:  $6.0 \text{ kg/m}^2$  | Open area: 51%



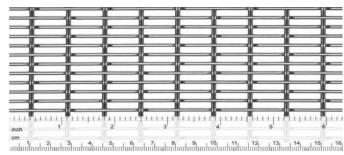
**DOKAWELL-MONO 3571** | Weight: 4.5 kg/m<sup>2</sup> | Open area: 60%



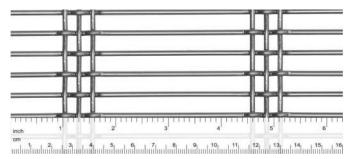
**LARGO-PLENUS 2127** | Weight:  $7.5 \text{ kg/m}^2$  | Open area: 28%



**DOKA-MONO 4253** | Weight: 6.1 kg/m<sup>2</sup> | Open area: 58%



**EGLA-TWIN 4253** | Weight: 6.0 kg/m<sup>2</sup> | Open area: 51%



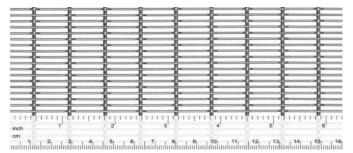
**DOGLIA-TRIO 1033** | Weight:  $6.5 \text{ kg/m}^2$  | Open area: 67%



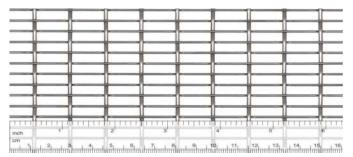
**DOKAWELL-MONO 3691** | Weight:  $4.2 \text{ kg/m}^2$  | Open area: 70%



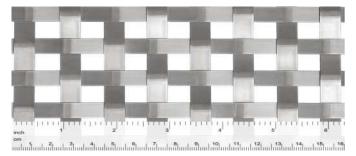
#### Product Range



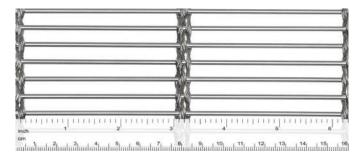
**EGLA-MONO 4881** | Weight: 5.2 kg/m<sup>2</sup> | Open area: 52%



**EGLA-MONO 4832** | Weight: 3.4 kg/m<sup>2</sup> | Open area: 69%



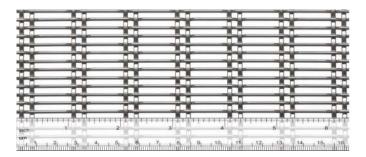
LARGO-PLENUS 2022 | Weight: 8.1 kg/m² | Open area: 25%



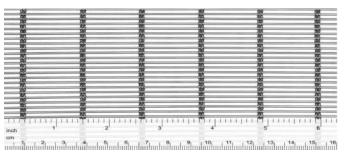
MULTI-BARRETTE 8123 | Weight: 6.6 kg/m² | Open area: 64%



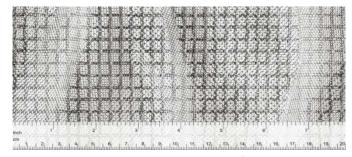
**DOKA-MONO 1591** | Weight: 5.9 kg/m<sup>2</sup> | Open area: 7.9%



EGLA-DUO 4222 | Weight: 7.4 kg/m² | Open area: 46%



MULTI-BARRETTE 8106 | Weight: kg/m² | Open area: 45%



**MONTANA 1961** | Weight: 2.1 kg/m<sup>2</sup> | Open area: 44%



**TEXTURA 1991** | Weight:  $0.3 \text{ kg/m}^2$  | Open area: 36%



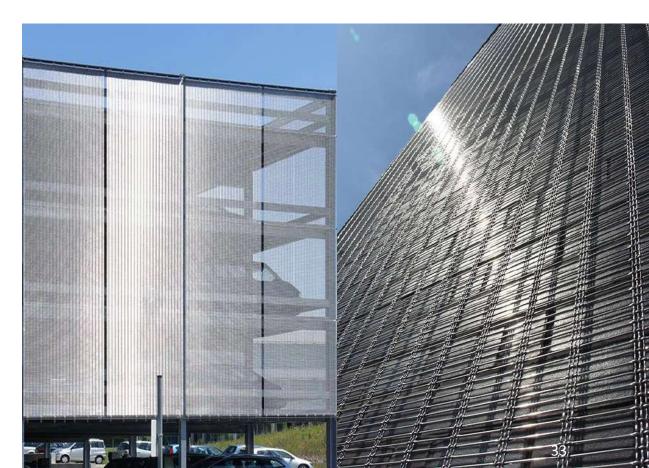
#### Façade

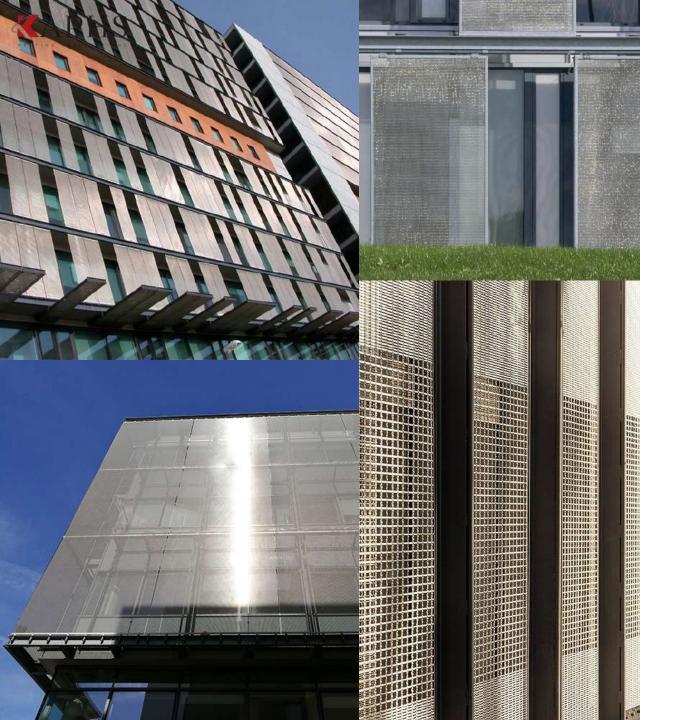
Woven Wire Mesh can be tensioned over the full height of an elevation. Solid substructures absorbing significant loads such as pre-tension and wind are only required at the building's upper and bottom attachment points. This ensures significantly lower costs for substructures and installation compared to façade cladding with framed solutions.

Depending on the size of the individual mesh elements, additional intermediate mountings fixed to each level of the building suffice. These reduce the maximum loads acting on the substructure as well as possible deflection of the mesh.



In most cases, it is possible to clad façades of heights of up to 25 meters in single length elements. Subject to a detailed technical inspection, even longer elements can be manufactured.





#### Façade – Sun Protection

Sunlight protection with **Woven Wire Mesh** is significantly more effective compared to interior systems, providing financial benefits by reducing energy costs for air conditioning.



Incident solar radiation is optimally filtered and the warming of the façade's optical effect, at the same time maintains the look of the building from both inside and outside. Particularly with glass façades, this effect opens up additional design possibilities.

#### Benefits include:

- Effective shading
- Excellent view from inside
- Natural Ventilation
- Fixed and removable solutions



# Interior Wall Cladding Application

Woven Wire Mesh offers a high quality appearance, is extremely durable and in combination with appropriate lighting, a highlight for any interior. It is also suitable as cladding for technical systems. It provides a visually enhanced surface that is robust enough to protect sensitive equipment.

As with façades, it can also be tensioned over wide areas on walls. This provides uniform cladding, at the same time, reduces outlay for the substructure.

Woven Wire Mesh disperses sound in all directions due to its structure. At the same time, the mesh acts as elegant cladding with effective acoustic insulation.









#### Colouring

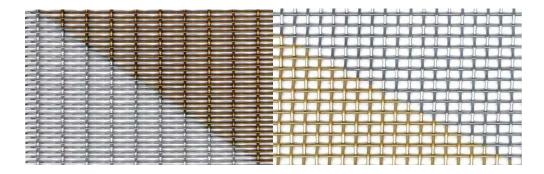
**Painting** of mesh elements allows the durability of a stainless-steel wire mesh to be combined with the wide range of shades available. Numerous metallic-effect shades are available along with the RAL color chart.



Detailed images can be represented on woven wire mesh using **digital printing**.



A **partial painting** allows corporate lettering or individual logos to be placed on the wire mesh façade and be visible from afar. Even large graphics can be set out on the façade.







### **WOVEN WIRE MESH**

### Mounting Solutions

#### **Top Mounting**

A flat tension profile is provided with clevis screws, which are used to hang the element in the substructure. At the same time, tension is applied to the upper fastening point.

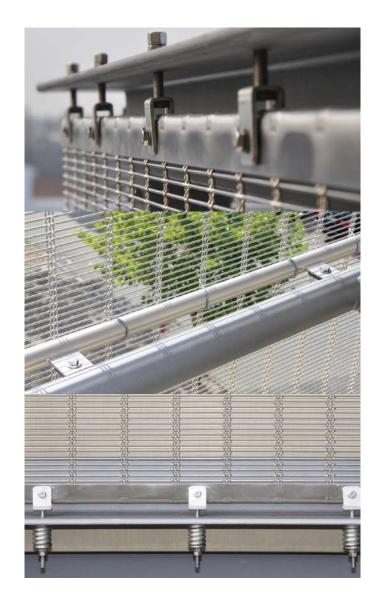
#### **Intermediate Mounting**

If the mesh is large enough, it can be secured by means of wire connectors. These reach around a steel tube lying behind the wire mesh.

#### **Bottom Mounting**

Flat tension profiles are used for the lower fastening, through which tension is introduced into the wire mesh by means of clevis screws. The additional use of pressure springs is necessary to give the wire mesh required elasticity under corresponding loads.









### Mercedes-Benz Showroom D3

Binchy & Binchy selected our DOGLIA-TRIO 1033 with 67% transparency in a double skin application.

The wire mesh was painted in RAL 7034 to highlight the Mercedes-Benz emblem hung from the mesh.

It creates a sleek, dissected addition to the façade and enhance its accent.

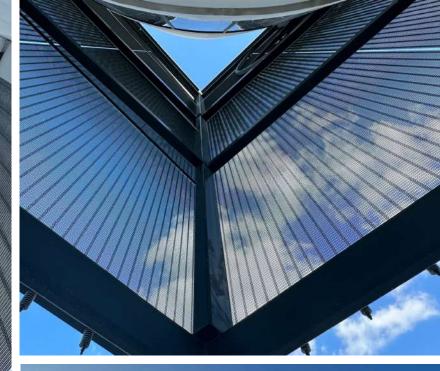
Location: Dubai - UAE

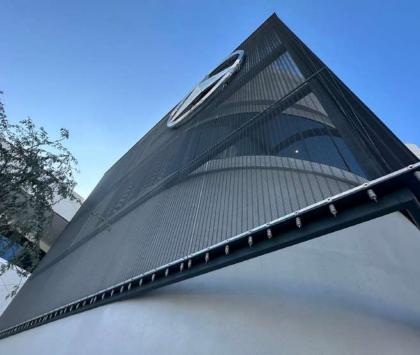
Client: Gargash

Architect: Binchy & Binchy













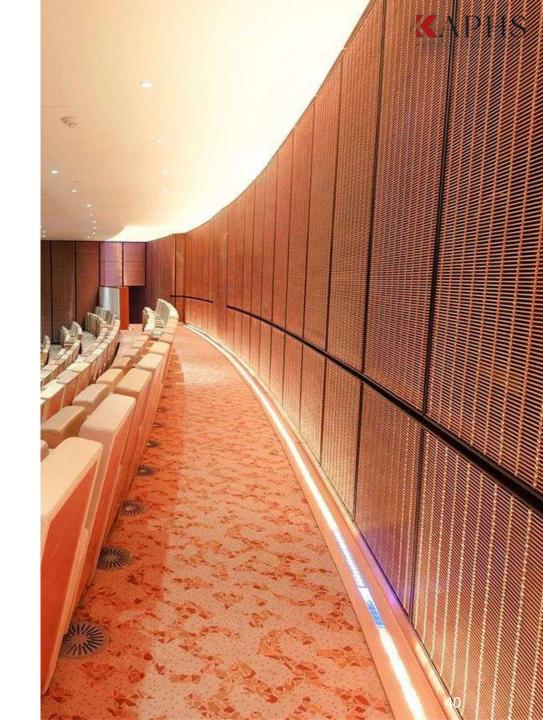
### **Qatar National Convention Centre**

The walls of the Theatre Hall are clad with bronze wire mesh type MULTI-BARETTE 8123, which underlines the exclusivity of the ambience due its color. The ceilings and walls inside the Qatar National Convention Centre are clad with 6,000 m<sup>2</sup> of architectural wire mesh. To meet the exclusive requirements of the room's ambience, the designers chose bronze and stainless steel wire mesh.

The wire mesh was specifically designed for the acoustic requirements of the theatre. The mesh is coated with clear varnish, canted to the edges and glued into black-coated aluminium frames. Due to their structure, the wire mesh types combine air permeability and acoustic neutrality with an optically closed and homogeneous overall picture. Location: Doha - Qatar

Client: QNCC

Architect: Arata Isozaki & Associates













# **Aspire Torch Tower**

The tower is designed to resemble a large torch, which is achieved with **Woven Wire Mesh** elements supplied by **KAPHS**. The facade consists of 3'452 single elements with a total area of 30'000 square meters.

Throughout the facade LEDs have been installed within the mesh to create user-defined effects in varying colors. Using the mesh type DOGLA-TRIO it was possible to vary the clear openings of the horizontal wires between 14 and 44 mm. The open area was incrementally increased from 72% to 85%.

Location: Doha - Qatar

Client: The Sports City Project

Architect: Arep









### **Dubai Hills Business Park**

The Dubai Hills Business Park consists of four office / commercial buildings and a central multi-storey car park. The architectural mesh EGLA-TWIN 4263 is used for the filigree façade cladding of this car park.

With its smooth surface on one side, which reflects the light over a very wide area, and an open mesh surface of 65 %, the stainless steel **Woven Wire Mesh** meets both: the visual requirements of the architect and the ventilation requirements for car parks.

Manufactured in ready-to-install mesh elements, which are up to 25 m long and up to 3 m wide; the wire mesh cladding can be easily attached to the façade of the car park using the mounting solution of tension profiles and clevis bolts.

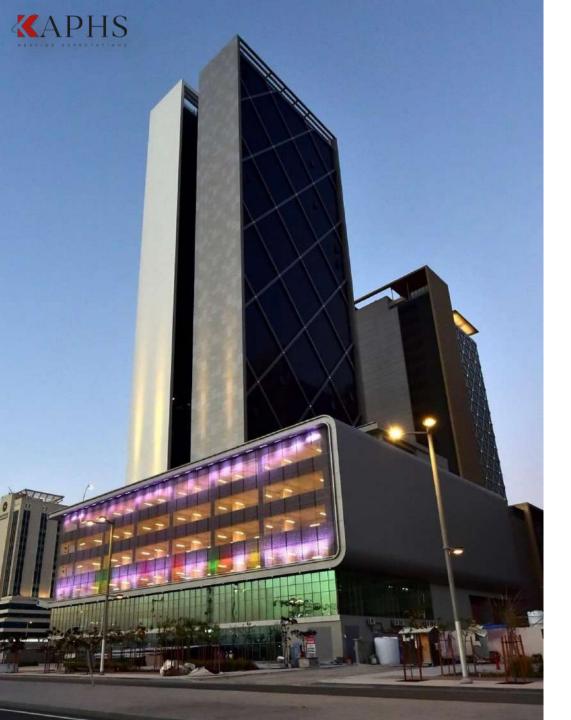
Location: Dubai - UAE

Client: Emaar

**Architect:** DAR







### Al Sendian Tower

The stainless steel mesh EGLA-MONO 4791 was used for the Al Sendian Tower in Qatar to cover the four-storey parking garage of the office building. The special feature of the semi-transparent facade cladding of the Al Sendian Tower is the surface treatment of the wire mesh. A continuous oriental pattern was painted on every mesh elements.

**KAPHS** supplied 2.535 m<sup>2</sup> of painted wire mesh as ready-to-install mesh elements including the system consisting of flat tension profiles, clevis bolts and pressure springs.

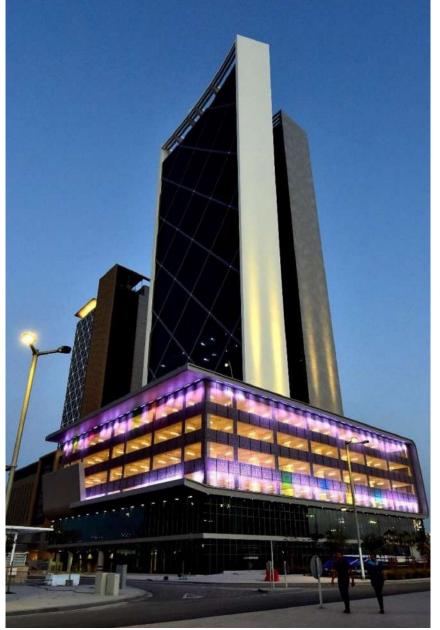
Location: Lusail - Qatar

Client: Sendian Group

Architect: Arab Engineering Bureau









### Al Naeem Mall

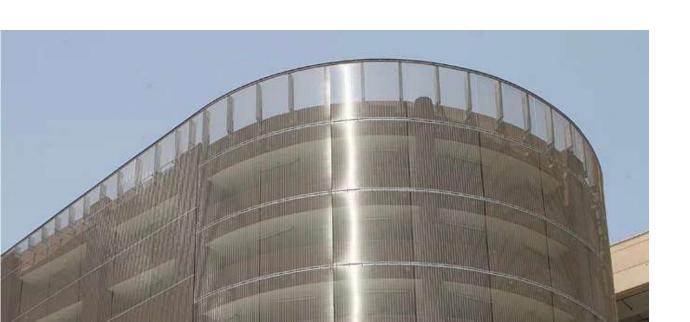
DOKA-BARRETTE is an amended version of the better known MULTI-BARRETTE cable mesh. Here the vertical cables are replaced by solid round wires, which lend more stiffness to the mesh. This is important to realize the round mesh construction in the areas of the ramps at the car park.

In total, **KAPHS** supplied 2250 m<sup>2</sup> of ready-to-install panels and supported the local contractor during the installation.

Location: Ras Al Khaimah - UAE

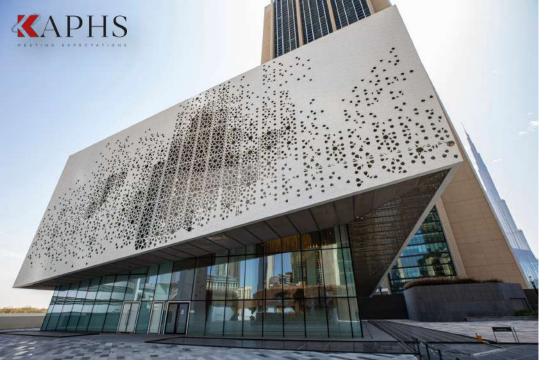
Client: Ahmed Essa Ahmed Al Naeem

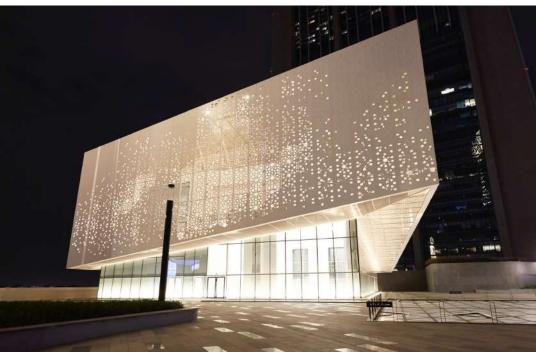
**Architect:** Rice Perry Ellis











### **DIFC Gate Avenue**

On special request of the architect, a new stainless steel mesh was developed - LARGO-PLENUS 2033. The woven stainless steel mesh elements were precisely cut into square, rectangular and parallelogram-shaped elements, welding spots act as protection. The customer framed the wire mesh elements with stainless steel flat profiles.

**KAPHS** advised the customer in detail on the edging, handling and assembly of the mesh elements before they were securely packed and shipped.

Location: Dubai - UAE

Client: DIFC

Architect: RMJM







# PROJECT REFERENCES

Project	Location	Client	Architect	M <sup>2</sup> Area	Application
ONGC Headquarters	Delhi - India	ONGC	Hafeez Contractor	10'155	Double Skin
PAAET AESSB	Kuwait City - Kuwait	PAAET	Jassim Quabazard	7'657	Double-Glazed, Interior
National Convention Centre	Doha - Qatar	QNCC	Aedas	6'000	Acoustic Wall Cladding
West Car Park	Doha - Qatar	Doha Sports City	Atkins	4'000	Ventilated Façade
WTC Mall	Abu Dhabi - Qatar	WTC Abu Dhabi	Foster & Partners	2'278	Laminated Wall Cladding
Al Naeem Mall	RAK - UAE	Ahmed Al Naeem	Rice Perry Ellis	2'250	Ventilated Façade
Sidra Medical Complex	Doha - Qatar	Sidra	Atkins	1'610	Ventilated Façade
North East Car Park	Doha - Qatar	Qatar Foundation	Atkins	870	Balustrade
Dr. Ali Fetais Tower	Lusail - Qatar	Dr. Ali Fetais	MZ & Partners	725	Ventilated Façade
Mercedes Flagship D3	Dubai - UAE	Gargash	Binchy & Binchy	464	Ventilated Façade
Al Sendian Tower	Lusail - Qatar	Sendian Group	AEB	3'500	Ventilated Façade
Bay View	Dubai - UAE	Damac	Arkitecnik	685	Canopy
National Museum	Doha – Qatar	NMOQ	Jean Nouvel	600	Interior Wall Cladding

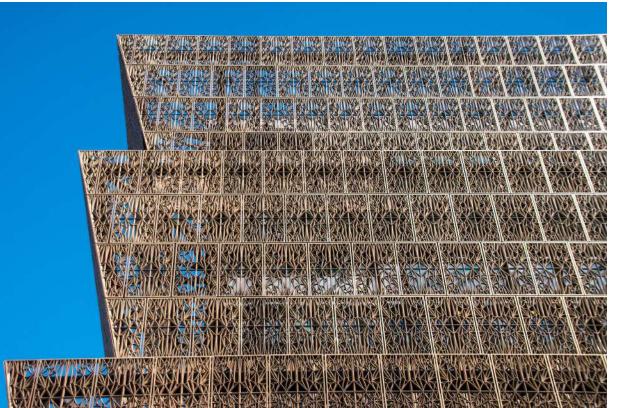


# PROJECT REFERENCES

Project	Location	Client	Architect	M <sup>2</sup> Area	Application
Dubai Hills Business Park	Dubai - UAE	Emaar	Aedas	4'000	Ventilated Façade
Aspire Torch Tower	Doha - Qatar	Doha Sports City	AEB	30'000	Façade
Energy City	Doha - Qatar	ECQ	Priedman	3'000	Façade
BCFC	Manama - Bahrain	BCFC	MSCEB	750	Ventilated Façade
Al Ain Hospital	Al Ain - UAE	Seha	Gensler	2'500	Ceiling
Ministries Complex	Kuwait City - Kuwait	Ministry of Justice	PACE	5'600	Double Glazed, Interior
GCT Headquarter	Manama - Bahrain	GCT	MSCEB	224	Interior Wall Cladding
Al Sadd Sports Club	Doha - Qatar	Al Sadd Sports Club	James Cubitt & Partners	80	Column Cladding
Khalifa Stadium	Doha - Qatar	Doha Sports City		325	Façade
Mandarin Oriental Hotel	Doha - Qatar	MOHG	Burns & Mcdonnell	30	Dividers
Dolphin Village	Muscat - Oman	Dolphin Village Muscat		290	Balustrade
Al Kout Mall	Kuwait City - Kuwait	Tamdeem Group	KEO	3'033	Façade







#### Introduction

KAPHS Architectural Screens encompasses a complete line of Cast Aluminium, Perforated Sheets, Laser Cut Aluminium Panels.

Our diverse line of **Mashrabiya Screens** provides Architects and Designers the abilitity to achieve highly customized patterns and designs.

**Architectural Screens** are widely used in cities where the weather conditions are rough, letting the aluminium façade absorb heat while allowing the cool air to breathe and lead to increased ventilation within the building. These screens also allow for diffused light entry and increased shading.

Our ability to process elaborate design into distinct, physical Architecture provides our clients the support they require to engineer their vision.

### Cast Aluminium

#### High Pressure Die Casting:

Predominantly used for mass production. The quality and accuracy is superior to other casting methods.

#### **Gravity Die Casting:**

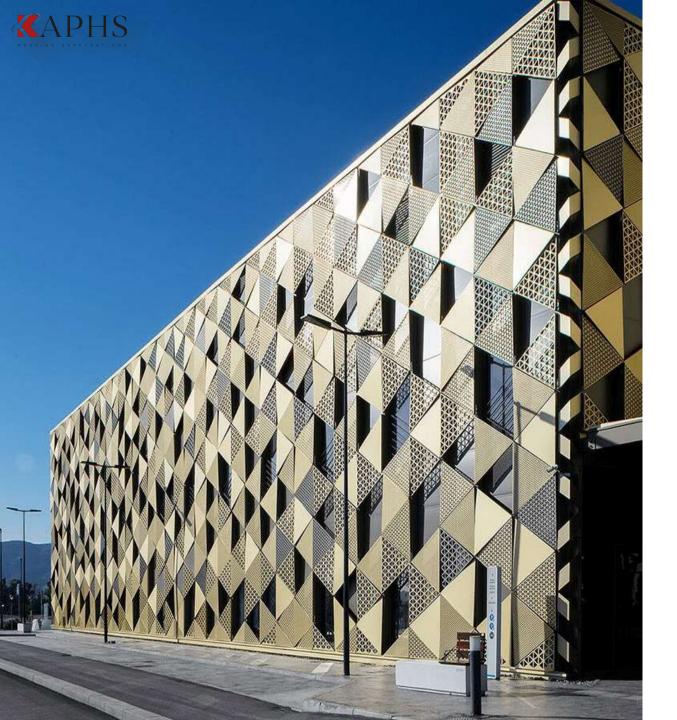
Generally used for medium to high volume production with good surface finish and accuracy for cast aluminium products. The tooling for this process is less complicated than high pressure die casting.

#### Sand Casting:

The oldest casting technique and still in use for low volume production, casting samples and prototypes. The surface finish being reflective of sand texture and require hand finishing in most cases.







#### Perforated Sheets

Architects, engineers, and design professionals often choose Architectural **Perforated Sheets** for their building projects. Architectural perforated metal is known for its remarkable versatility, as it can be used for efficient filtering of a broad range of solid materials.

It also has the ability to diffuse light and air. Most importantly from an architect's perspective, architectural perforated sheet metal can provide the aesthetic appeal that is essential when the appearance of a product is paramount.

Our standard **Perforated Sheets** look great and are a good way to cut costs, or we have more unique forms to choose from. We also have perforated metal capabilities to custom punch for different open areas for more stability, which can be necessary for some architectural uses.



#### Laser-Cut Aluminium Panels

Laser-Cut Aluminium Panels offer endless pattern customization, seamlessly blending engineering and art to elevate the architectural and decorative design of any building. Its low maintenance and ecofriendliness further enhance its appeal. Lightweight and easy to work with, they represent a popular choice today, complementing glass curtain walls while reducing UV radiation exposure.

In addition to building screens, laser-cut panels find various applications. For those seeking to divide open spaces without using traditional brick-and-mortar walls, laser-cut panels offer an ideal solution, especially in kitchens. They allow for visual blocking while maintaining an open and airy feel.









### Mama Shelter Hotel

On special request of the architect, a new stainless steel mesh was developed - LARGO-PLENUS 2033. The woven stainless steel mesh elements were precisely cut into square, rectangular and parallelogram-shaped elements, welding spots act as protection. The customer framed the wire mesh elements with stainless steel flat profiles.

**KAPHS** advised the customer in detail on the edging, handling and assembly of the mesh elements before they were securely packed and shipped.

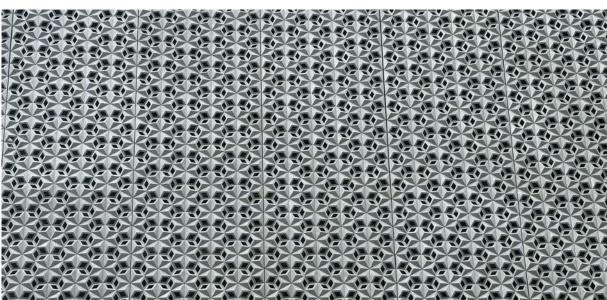
Location: Dubai - UAE

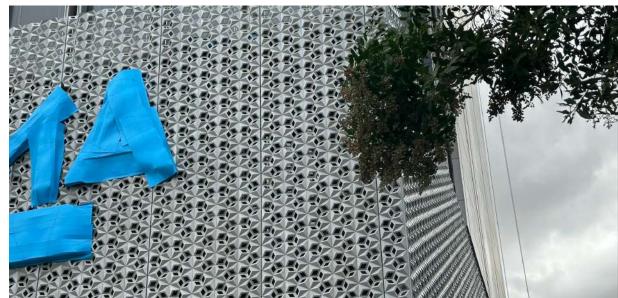
Client: Khamas Group

Architect: NEB













**U-Channel Glass** – an alkali-lime glass consisting mainly of sand, lime, soda and dolomite – is a special form of moulded glass. These raw materials are carefully melted down in the world's first oxygen-fired – and therefore also environmentally friendly – glass moulding oven. The glass strip taken from the oven is bent into a U shape whilst still in its molten phase. It is then cooled and hardened. After the precisely controlled cooling process, the desired lengths are automatically cut, checked for quality, and packaged in batches in transport foil. The resulting glass channels all have an individual optical character, which gives the effect of a lively, light-refracting glass facade.



### **U-CHANNEL GLASS**

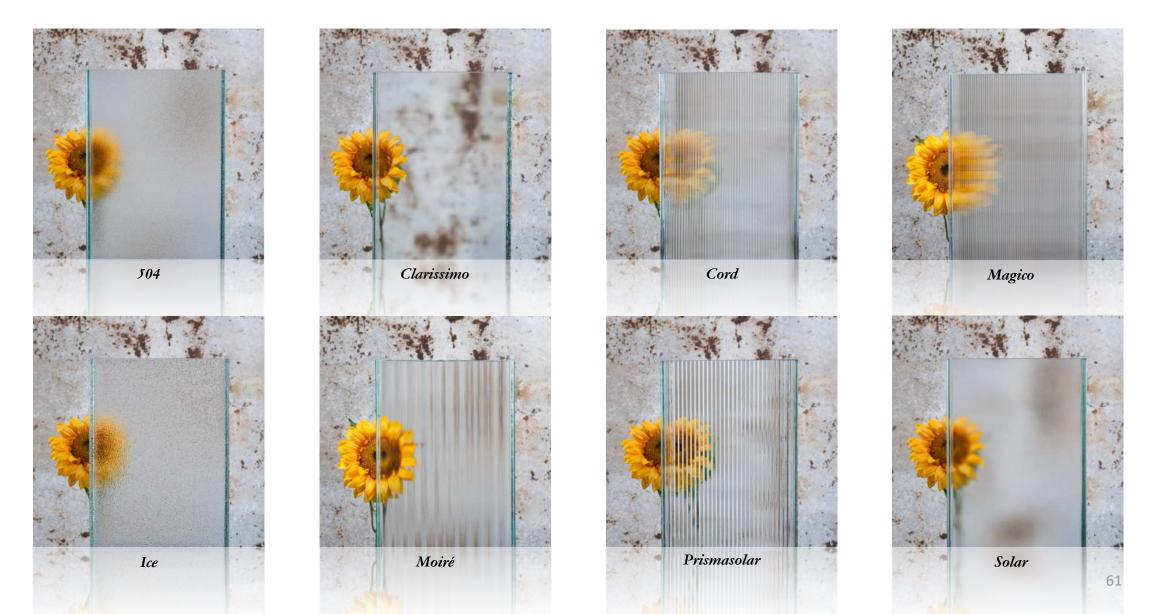
#### Introduction

By contrast to flat panes of glass and due to its U shape, **U-Channel Glass** has excellent load-bearing capacities and can therefore be installed in very considerable lengths (up to 7m depending on wind load/stress) without any intermediate support. **U-Channel Glass** has such high static strength that side braces can usually be avoided. The result is a façade which provides a maximum of glass and a minimum of frame profile.





Glass Surfaces





Glass Surfaces / Sandblasting





Glass Surfaces / Color Enameled



63

### Façade Application

Unlike flat glass panes, **U-Channel Glass** is durable and has excellent load-bearing capacities due to its U-shaped form. It can be mounted in considerable lengths (up to 7 meters depending on the wind load) without any intermediate support. **U-Channel Glass** has such high static strength that side braces usually are not necessary. The result is a facade with a maximum of glass and a minimum of frame profiles.

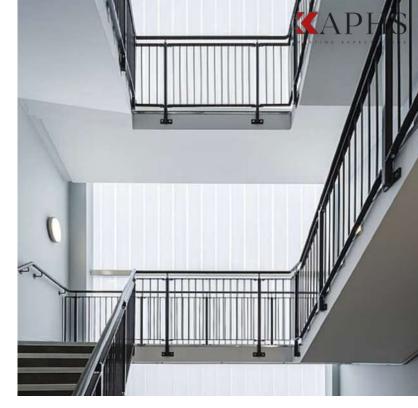






### Façade Application / Light Diffusion

**U-Channel Glass** is an alkali cast glass in U-shape, which is produced according to EN 572, using the machine rolling process. It is translucent, but not transparent, with or without a patterned surface on the outside and has the quality features of cast glass. This highly durable product allows light to enter buildings whilst presenting a translucent external appearance. A wide range of fitting options provides considerable flexibility.



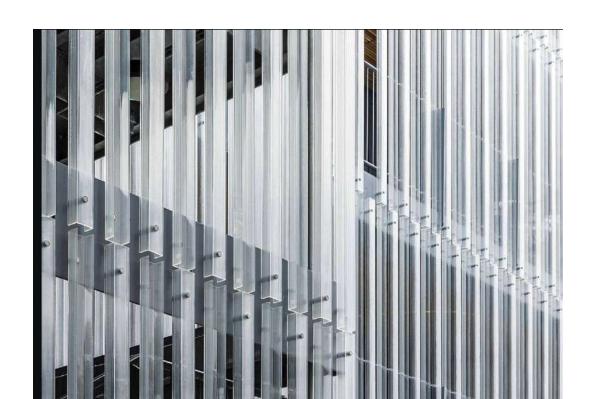


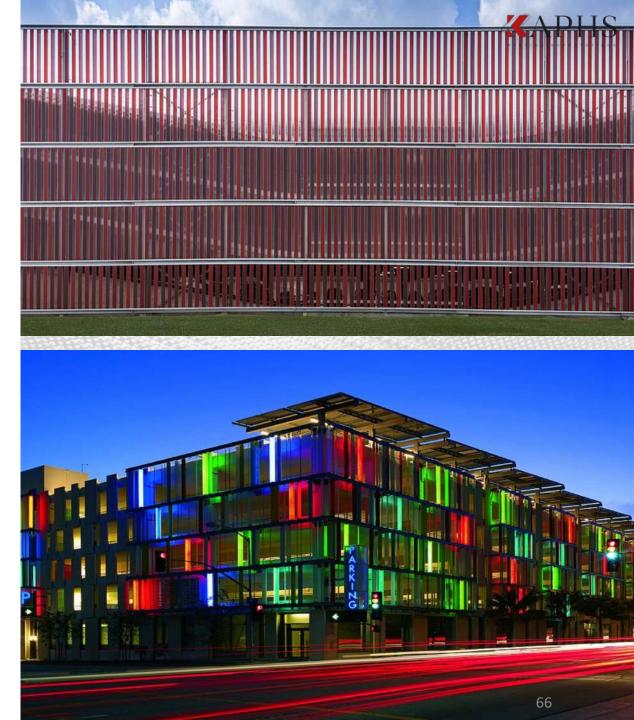




### Car Park Application

**U-Channel Glass** can be mounted in considerable lengths (up to 7 meters depending on the wind load) without any intermediate support.



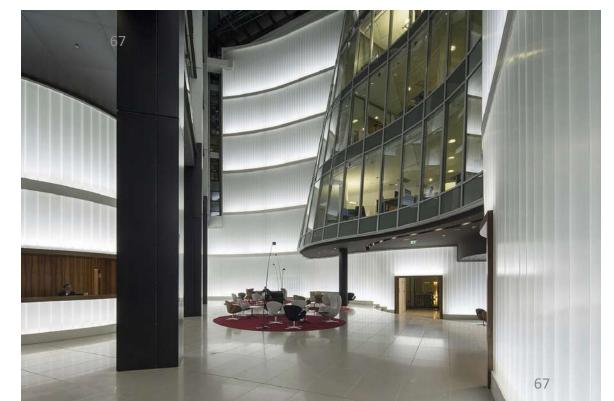






### Internal Application

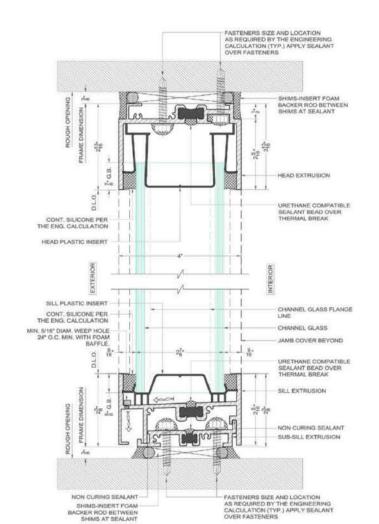
**U-Channel Glass** can be used in interior or exterior applications e.g. industrial, commercial or residential buildings. The U-shaped channels can be installed either vertically or horizontally. The glass is available in a variety of colors and textures with varying translucency, allowing for the passage of natural light without the loss of privacy.





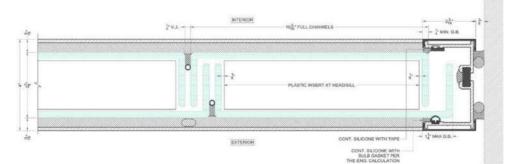
#### Installation

#### Vertical and Horizontal Façade System



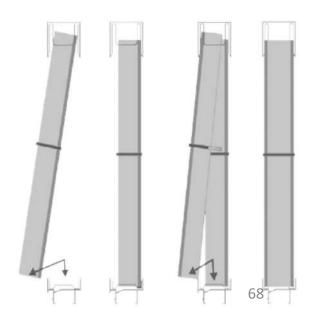


Side view detail



Unique system design requires the glass be captured at the head & sill only; the jambs deflect together with the glass. Accommodates all double-glazed exterior channel glass applications in all texture.

The glass channel is lifted into the top profile for its bottom edge to clear the sill, and is then deadloaded into the bottom profile.





### **DIFC Gate Avenue**

An enclosed spine links Dubai International Financial Centre (DIFC) buildings and hotels through a retail precinct. The retail spine includes a tiered external landscape deck to the roof linking the adjoining buildings. The roof has three feature gateways structures that frame the buildings of Dubai and act as access nodes into the retail spine below. The iconic gateways are made with **U-Channel Glass**, one way spanning onto a steel sub-frame.

Location: Dubai - UAE

Client: DIFC

Architect: RMJM



















### Bluewaters Island

Bluewaters Island by Caesar's, developed by Meraas features world-class amenities and hospitality. The event building, designed by Woods Bagot, lies at the centre of the hotel complex. The building's façade is made of **U-Channel Glass** supplied by **KAPHS**. A unique glazing products allowing architects to minimize the amount of frame used, thereby providing a seamless glass façade.

Location: Dubai - UAE

Client: Meraas

Architect: Woods Bagot























## Burj Assila, Shangri-La

Anchored on the new Jeddah Waterfront along the shores of the Red Sea, Burj Assila, designed by Perkins + Will sets a standard for luxury in the city. **KAPHS** supplied **U-Channel Glass** as a special application for lighting elements: flange on flange, protruding from the façade. These fins are backlit, enabling visual patterns to be displayed on the façade of the building.

Location: Jeddah - KSA

Client: Assila Investments

Architect: Perkins + Will











### **BMW** Flasgship Motor City

Bluewaters Island by Caesar's, developed by Meraas features world-class amenities and hospitality. The event building, designed by Woods Bagot, lies at the centre of the hotel complex. The building's façade is made of **U-Channel Glass** supplied by **KAPHS**. A unique glazing products allowing architects to minimize the amount of frame used, thereby providing a seamless glass façade.

Location: Dubai - UAE

Client: AGMC

Architect: Archcorp













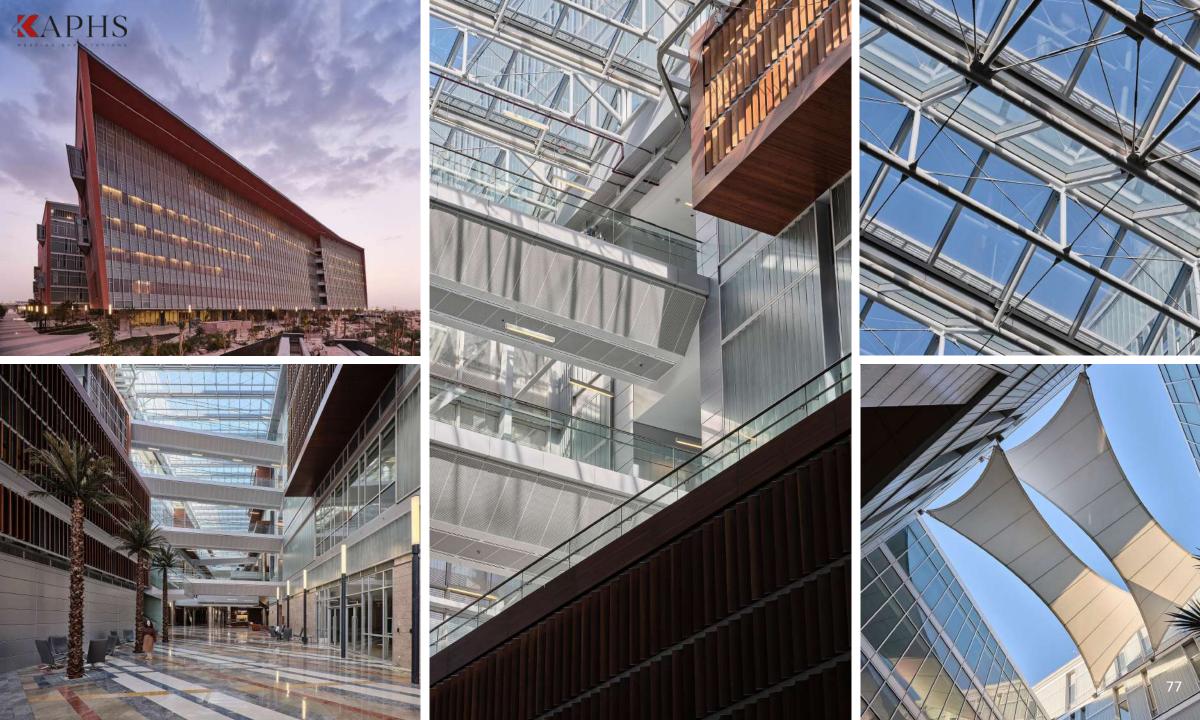
### College of Engineering & Petroleum

The College of Engineering and Petroleum (COEP), designed by Cambridge Seven in association with Gulf Consult, has received the Award of Excellence 2021 from American Concrete Institute's Kuwait Chapter. The award citation recognized the College as a 'sustainably designed higher education facility that seamlessly combines functional and elegant architecture with contemporary engineering and smart systems'. KAPHS supplied over 37'000 m2 for both interior and exterior glazing of U-Channel Glass.

Location: Kuwait City - Kuwait

Client: Kuwait University

**Architect:** Gulf Consult



#### **Cleveland Clinic**

On the exterior, much of the building is enclosed by distinctive diamond glazing, with the diamond shapes representing a subtle nod to Islamic geometry. The exterior colors were inspired by the region's landscape; glass echoes the striking blues of the sea, while onyx pays tribute to the desert and arid landscape. The complete podium level of the clinic is glazed with 22'205 m2 of **U-Channel Glass**.

Location: Abu Dhabi - UAE

Client: Cleveland Clinic Abu Dhabi

Architect: HDR











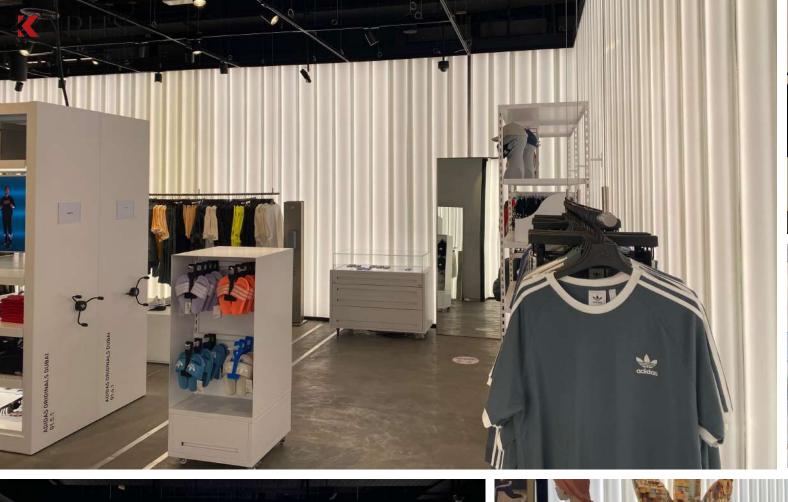
## Adidas Flagship Dubai Mall

Our recently completed project for the Adidas Flagship store in The Dubai Mall uses a backlit version of our **U-Channel Glass**. Because of its U-Shape, the glass is able to carry its own load, enabling a sleek, frameless appearance.

Location: Dubai - UAE

Client: Adidas

Architect: Adidas













## Adidas Flagship Avenues Mall

Set in the Avenues Mall of Kuwait, the Adidas Flagship Store using over 400 m2 of our backlit version of **U-Channel Glass**. Because of its U-Shape, the glass is able to carry its own load, enabling a sleek, frameless appearance.

Location: Kuwait City - Kuwait

Client: Adidas

**Architect:** Adidas









# PROJECT REFERENCES

Project	Location	Client	Architect	M <sup>2</sup> Area	Application
College of Engineering	Kuwait City - Kuwait	Kuwait University	Gulf Consult	37'000	Façade, Interior Glazing
Cleveland Clinic	Abu Dhabi - UAE	Cleveland Clinic Abu Dhabi	HDR	22'205	Façade
Arzanah Medical Complex	Abu Dhabi - UAE	Medical Holding Company	WSP	1'617	Façade
The Beach at JBR	Dubai - UAE	Meraas	BSBG	1'211	Façade
DIFC Gate Avenue	Dubai - UAE	DIFC	RMJM	14'300	Façade
KITC	Kuwait City - Kuwait	KITC	KEO	1'800	Façade
Leader Sports Mall	Dubai - UAE	Leader Sports	JRHP	1'800	Façade
Adidas Avenues Mall	Kuwait City - Kuwait	Adidas	Adidas Europe	400	Façade
Adidas Dubai Mall	Dubai - UAE	Adidas	Adidas Europe	200	Interior Glazing
Adidas Dubai Hills Mall	Dubai - UAE	Adidas	Adidas Europe	80	Interior Glazing
Abdul Latif Villa	Khartoum - Sudan	Private Owner	Vision Interior	55	Façade
Dow Kaust	Jeddah - KSA	Dow Kaust	НОК	2'300	Façade
Bluwaters Island	Dubai - UAE	Meraas	Woods Bagot	7'504	Façade



# PROJECT REFERENCES

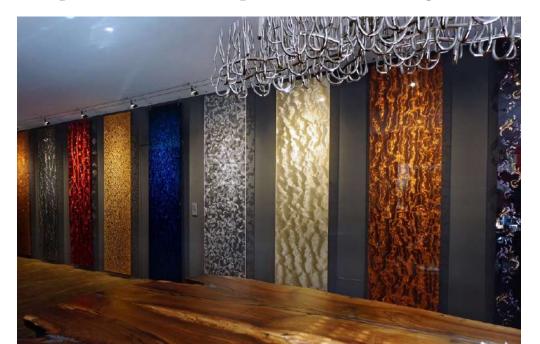
Project	Location	Client	Architect	M <sup>2</sup> Area	Application
BMW Showroom Motor City	Dubai - UAE	AGMC	Archcorp	2'000	Façade
BMW Showroom Sheikh Zayed	Dubai - UAE	AGMC	ATI	560	Façade
Burj Assila	Jeddah - KSA	Assila Investments	Perkins + Will	1'800	Glass Fins
Sabic Headquarter	Jubail - KSA	Sabic	Henning Larsen	6'500	Façade
Said Dal 1923	Dubai - UAE	Said Dal 1923	Fabrizio De Mauro	300	Façade
Private Villa	Abu Dhabi - UAE	Private Owner		78	Façade
Ahmadi Police HQ	Kuwait City - Kuwait	Ministry of Public Works	SSH	436	Façade
Sheikha Fatima Park	Abu Dhabi - UAE	Abu Dhabi Municipality	Benoy	2'300	Exterior Glazing



#### Lumière Acrylic Mesh

Lumière Acrylic Mesh is a new, fascinating material with endless opportunities. All of our meshes and inlays are captured inside the acrylic and float between the poles of visually-soft materiality and solid transparency.

The highlight for the senses is achieved through unique nanoparticles in the acrylic glass. In the presence of light and LED technology, this extraordinary material composition makes it possible to achieve intensely radiant effects and thereby create the perfect setting for shine & shimmer, light & shade, colors & shapes.









Lumière Acrylic Mesh Types







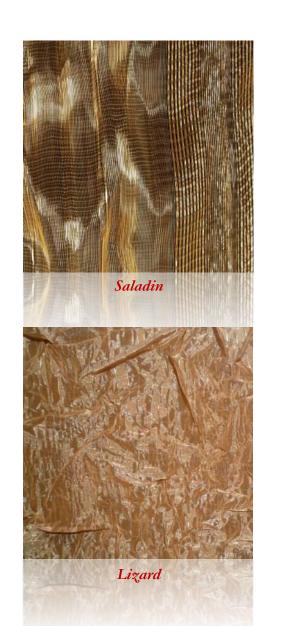


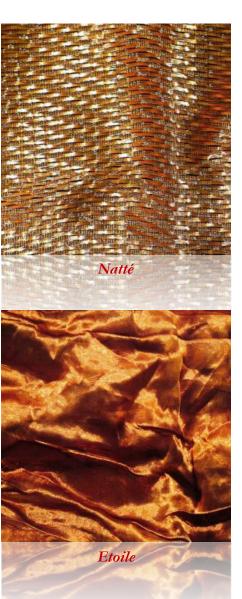


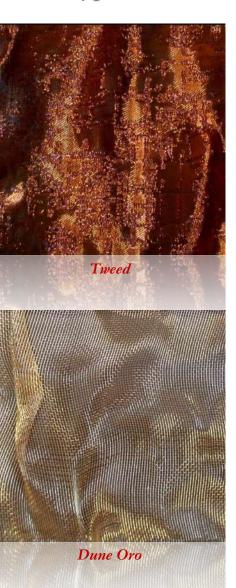




Lumière Acrylic Mesh Types





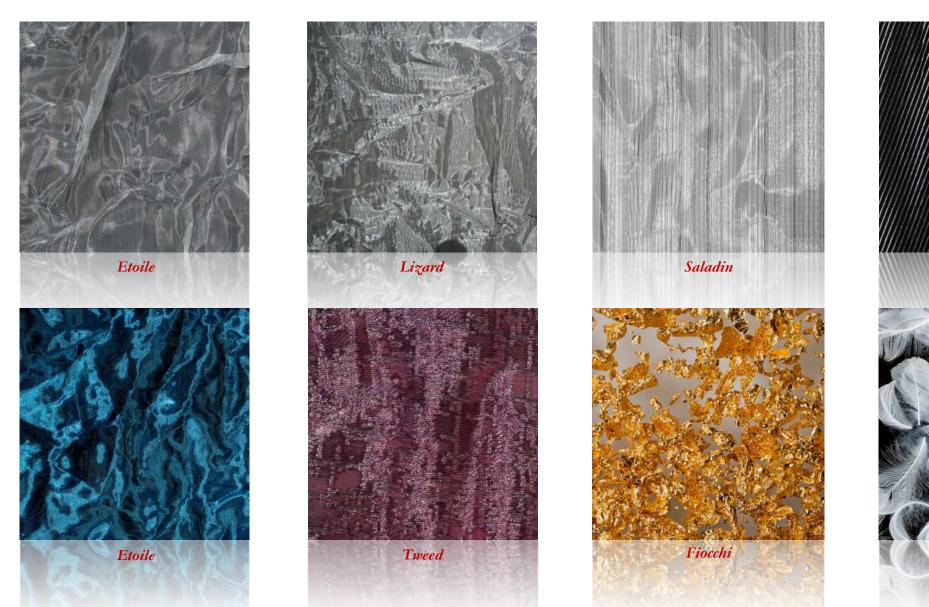






Lumière Acrylic Mesh Types

Lines



#### LUMIÈRE ACRYLIC MESH

#### Wall Cladding Application

The 3-dimensional visual depth within Lumière Acrylic Mesh inlays are achieved by free flowing within the resin. The visual depth is revealed prominently within the edges of the panel, making polished edges a feature of their own when showcased in applications.

Laminated panels offer a flatter appearance in addition the laminating process can be compromised over time letting in moisture and contaminates.









## LUMIÈRE ACRYLIC MESH

#### Partition Application

- Partitions in offices and in large conference conferences areas
- Dividers in public agencies and institutions
- Free-standing design elements
- Bathroom partitions







#### LUMIÈRE ACRYLIC MESH

#### Counter Application

The 3-dimensional visual depth within Lumière Acrylic Mesh inlays are achieved by free flowing within the resin. The visual depth is revealed prominently within the edges of the panel, making polished edges a feature of their own when showcased in applications.

Laminated panels offer a flatter appearance in addition the laminating process can be compromised over time letting in moisture and contaminates.





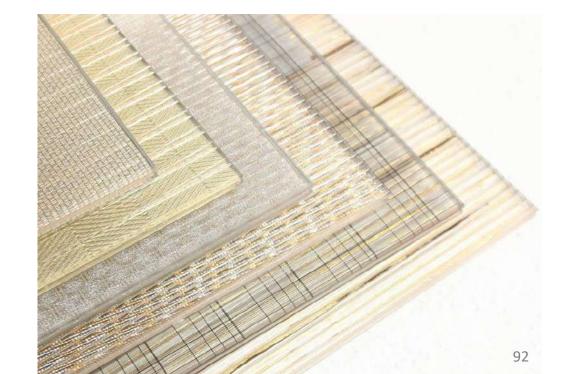




#### Lumière Metal Mesh Glass

Lumière Metal Mesh Glass, also called wire mesh laminated glass, is made of multi-layer glass and wire mesh. Due to the advanced technology and high quality raw material, laminated glass wire mesh can not only avoid injuries but also have excellent ability of anti-attack and anti-seismic. Thus it becomes a fashionable and practical decorative material in modern interior and exterior design.

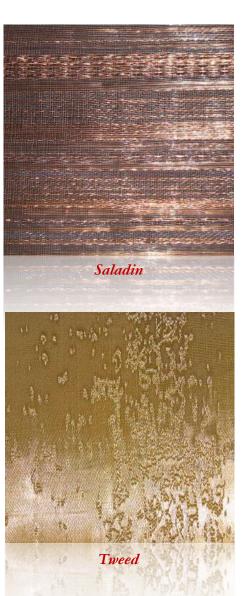






Lumière Metal Mesh Types













# LUMIÈRE METAL MESH GLASS

#### Interior Applications

- Partitions in offices and in large conference conferences areas
- Dividers in public agencies and institutions
- Free-standing design elements
- Bathroom partitions
- Wall Claddings







#### Lumière Priva Glass

Metal coated precision woven mesh fabrics, glass lamination engineered fabrics, high compatibility with all interlayers, facade shading, light passages from 25% to 60%. Lumière Priva provides heat and energy saving, high privacy levels, certified quality and safety.

The synthetic weave combined with the metallic surface coating ensure a bright and shining metal appearance as well the highest technical performance for glass lamination.



Besides the outstanding, lively 3-D appearance of the fabric and its unique one-way-vision effect, **Lumière Priva** provides a number of clear additional benefits for architects, designers, engineers, owners and users of buildings with glass applications.

- Providing shading
- Glare protection
- Bird strike protection
- One-way-vision effect
- Privacy
- Lively 3-D appearance
- Design, creativity & function
- Active safety due to laminated glass

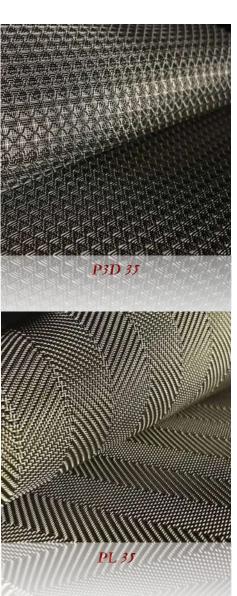


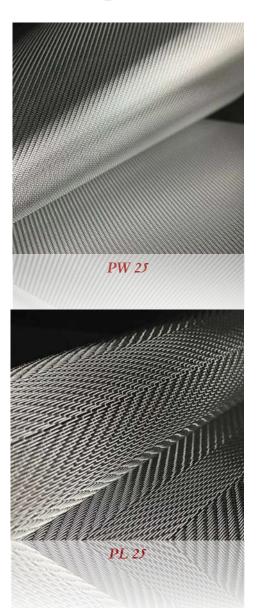


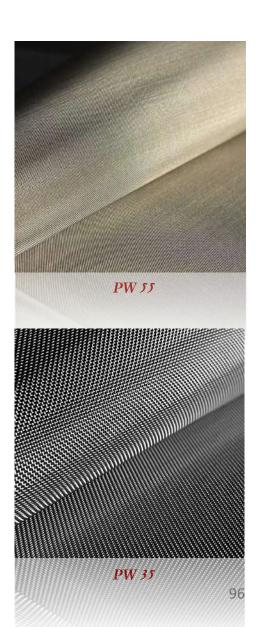


Lumière Priva Fabric Types









#### LUMIÈRE PRIVA GLASS

#### Façade Application

The fabric's open area determines the degree of energy transmission and transparency. In addition, the metal coating and color is also instrumental for the reduction of energy transmission.

#### Exterior Applications include:

- Glass Louvers
- Fins
- Skylights
- Canopies
- Façade Insulated Glass









#### LUMIÈRE PRIVA GLASS

#### Interior Application

Lumière Priva Glass, also called mesh laminated glass, is made of multi-layer glass and wire mesh. Due to the advanced technology and high quality raw material, laminated glass wire mesh can not only avoid injuries but also have excellent ability of anti-attack and anti-seismic. Thus it becomes a fashionable and practical decorative material in modern interior and exterior design.







#### **QUALITY CERTIFICATION**



#### CERTIFICATE OF REGISTRATION

This is to certify that the Management System of

#### KAPHS Middle East Building Materials Trading LLC

Office 1701, Prime Business Center A, Jumeirah Village Circle (JVC), District 13, Dubai, United Arab Emirates.

has been assessed and registered by Veritas System Quality Certificates as conforming to the requirements of

ISO 9001:2015

**Quality Management System** 

The Quality Management System is applicable to:

**Building & Construction Materials Trading** 

IAF/EA-NACE Code: 29-46.63

Certificate No: VSQC099-421231032

Initial Certificate Date: 16-09-2023

Surveillance due date / Certificate expiry date: 15-09-2024

Re-certification due date: 15-09-2026

Note: Validity of this certificate is subject to successfully completion of each annual surveillance audit on or before due date.

Authorised Signatory

Veritas System

**Quality Certificates Issuing LLC** 

P.O. Box: 122982, Al Karama, Dubai, United Arab Emirates.









This certificate remains valid while the holder maintains the management system in accordance with the standard(s) above. which will be periodically audited by Ventas System Quality Certificates Issuing LLC.

This certificate remains the property of Veritas System Quality Certificates Issuing LLC and must be returned on request. In the issuance of this certificate, Veritas System Quality Certificates Issuing LLC on liability to any party other than to the client, and then only in accordance with the agreed upon certification agreement. Validity of this certificate may be confirmed at www.veritasasturance.com, directly through QR code by using any device with correct information or email to adminighrenitasassurance.com.





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