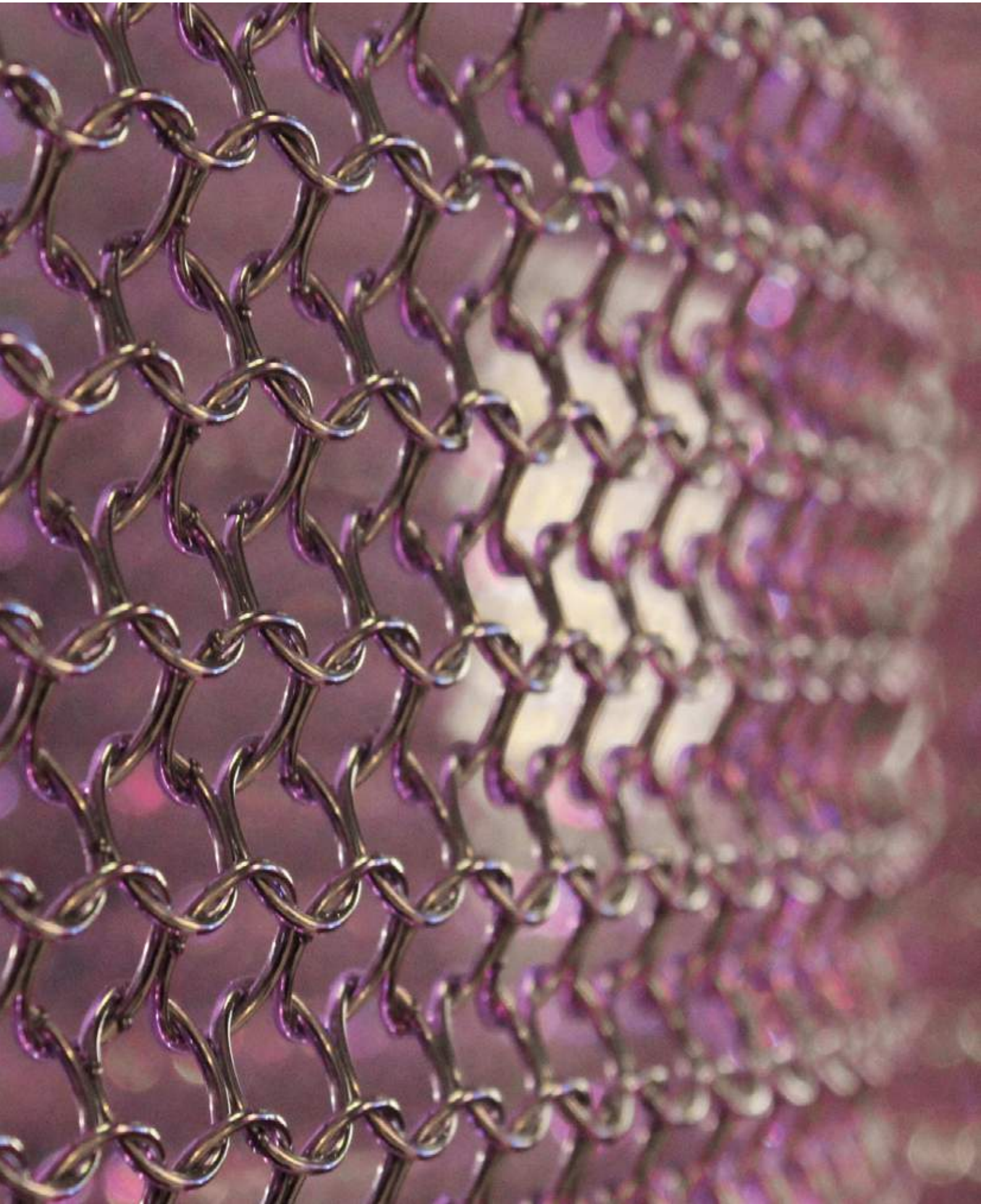
alphamesh



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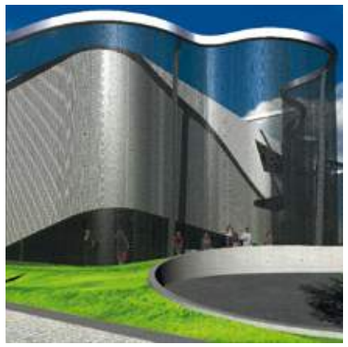
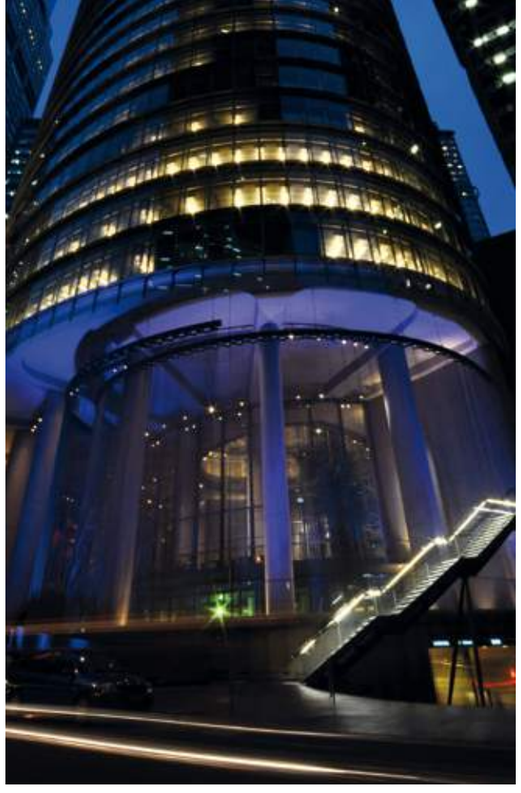


promesh GmbH has been producing and developing ring mesh and scale mesh for architectural applications since 2006. The claim to quality, function and design that is unique to alphamesh of constantly realising new ideas for application with visionary force.
As a new original material alphamesh fascinates today in the most diverse architectural and design application areas, from very small to very large. Since size is what makes alphamesh unique worldwide. This is made possible thanks to a special manufacturing process, which enables almost unlimited dimensions and therefore unimaginable scope. As a facade cladding in building dimensions, as a light shell structure or as an interior design element alphamesh always impresses with its option of redefining the term space, as the transition from flat two dimensionality into a shaping 3rd dimension is natural for the flexible material.
alphamesh uses light and water as a stage for its own production, with reflections here and the modulation of flowing dynamics there. And because alphamesh's range of application is as diverse as the ideas that architects and planners associate with it, alphamesh is not just a product but rather an unlimited creative design process.

photo credits: pages 3 / 4 ingenhoven architects, Düsseldorf // H. G. Esch, Hennef; Seiten 4 / 5 Daniel Swarowski, Wattens; Seite 16 /17 Metallatelier Fuchs, Deggenhausen
alphamesh_05_2012

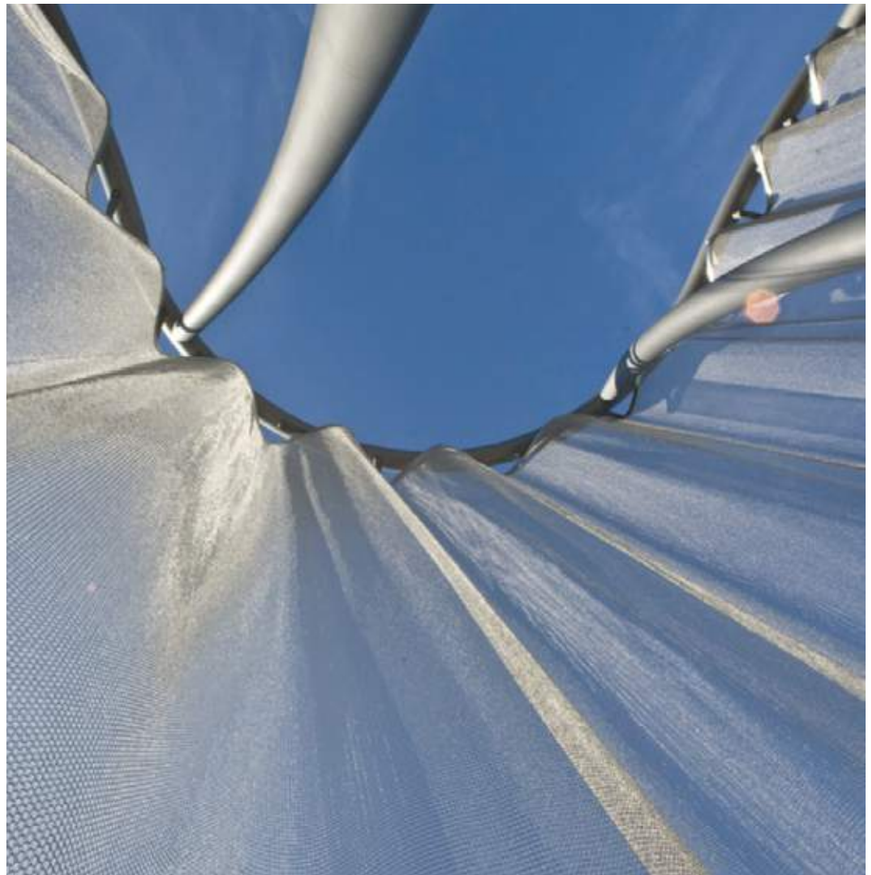


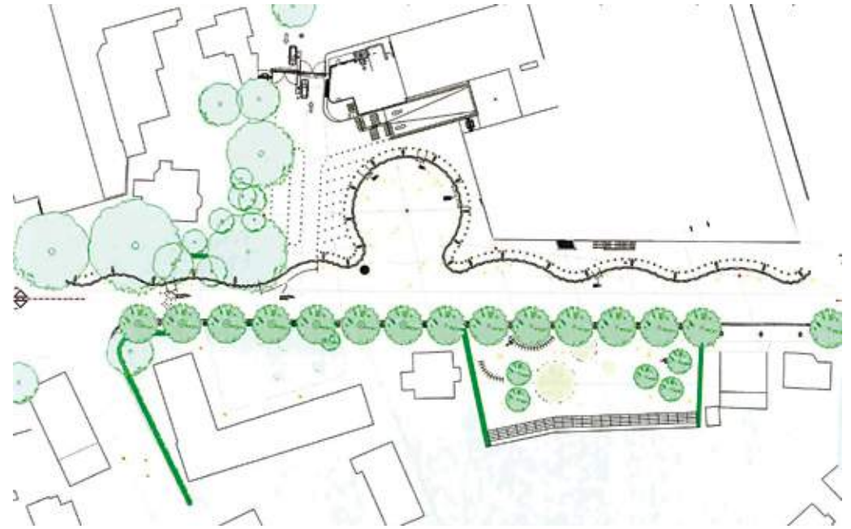
Bligh Street Sydney

A fixture of Sydney's skyline.
The office building on 1 Bligh Street in Sydney stretches 139m into the sky. But it isn't the height of the building in the Sydney harbour skyline that makes it unique. Number 1 Bligh Street, the building with an unobstructed view of the harbour and the opera house, is unique as it is the first ever building in Australia to be honoured with the „6 Star/World Leadership" certificate from the Australian „Green Star" environmental standards agency.
Number 1 Bligh Street is the perfect symbiosis of design, technology and sustainability; virtues which are also evident in the alphamesh 12.0 curtain on the ground floor of the building.
The 17m high and 90m long transparent mesh surrounds the outdoor area of the building's kindergarten and defines a space that offers the highest possible degree of visual freedom.

Project 1 Bligh Street, Sydney
Country Australia
Architects ingenhoven architects, Düsseldorf
Material
alphamesh 12.0 stainless steel

Swarowski Wattens





The alphamesh curtain is composed of more than 26 million individual welded rings and encloses the premises like a work of art. With a height of 10m, the curtain meanders along a total length of 250m and plays tricks on those who look at it over its entire length. Apparently cloaking yet open like a transparent door at the same time. What lies behind the curtain can only be guessed at and never unveiled.
As soon as it becomes dark, the curtain changes into a 2,500m² stage on which continuously changing coloured lights are displayed. The curtain that was made for Swarovski in 2008 is not only the world's largest ring-mesh feature. All the same, Swarovski's curtain is proof that it is possible to create alphamesh in almost any dimension and that it can also be designed and constructed so that it appears to float.

Project Swarowski, Wattens
Country Austria
Architects Ingenhoven Architekten,
D e signstudio Regina Dahmen-Ingenhoven, Düsseldorf
Material alphamesh 12.0 stainless steel

Martin & Lola Évry

The exterior facades of the Martin & Lola shopping centre are more than just vertical surfaces. They are covered with more than 1,000m² of alphamesh 12.0. Apparently weightless, the ring-mesh floats in front of the facade and follows the outline of the building in gentle verves, tasks which alphamesh can master with ease due to its low surface weight and its great flexibility.

Project Martin & Lola, Évry
Country France
Architects Construction Metalliques Auer, Occey
Material
alphamesh 12.0 stainless steel

WiT Coimbra

Sometimes less is simply more. When designing the facade of the WiT headquarters in Coimbra, Portugal, architect Luis Florio opted for more attention by using less material. The ringed structure of the alphamesh covers just 37% of the surface and therefore allows sufficient scope for communication from the inside to the outside. And in so doing, the edifice becomes the metaphor for a company that develops software for „Mobile Communication".

Project WiT, Coimbra
Land Portugal
Architects Luís Flório, Condeixa-a-Nova
Material
alphamesh 12.0 stainless steel

J1 Marseille

In 2013 Marseille was selected as the "European Capital of Culture". A factor leading to the city's overall transformation. And to a change in the history of the J1.

A rundown industrial wasteland for years, the impressive J1 hangar located in Marseille's port area has nowadays been renovated into a major cultural venue. Hosting galleries, an immense exhibition space and bar-restaurant facilities offering a breathtaking view of the port and the city beyond. To leave the beauty of the view unspoiled, the architects opted for an alphamesh 12.0 stainless steel curtain wall facade – in a fall of elegantly meandering folds. And with an open area of approx. 63 percent, it constitutes the perfect facade material – leaving one perhaps breathless but not view-less!

Project J1, Marseille
Land France
Architects Bonte & Migozzi.Marseille
Material
alphamesh 12.0 stainless steel

New Synagogue Dresden

Task of the project was to span all necessary elements of a Jewish service, as for example the Torah's shrine, the lectern, the everlasting light, the rows as well as the loft with a transparent mesh tent. The project was awarded in 2002 with the „World Architecture Award".

Project New Synagogue Dresden
Land Germany
Architects Wandel Hoefer Lorch, Saarbrücken
Material
alphamesh 12.0 stainless steel (stars) and alphamesh 12.0 bronze polished



Synagogue Munich

The outer framework is marked by a metal mesh that produces diffuse light. Inside at the side the women's gallery rises behind a Mechiza (sight screen). A transparent, shiny golden curtain, allows views while the separation according to the Jewish faith between man and woman still exist. The bronze ring mesh, with a 7.0 mm ring diameter owns these properties. A light-filled atmosphere suggests a play of reflections, which also shows the natural and intensive color of the bronze ring mesh.

Project Synagogue Munich
Land Germany
Architects Wandel Hoefer Lorch, Saarbrücken
Material
alphamesh 7.0 bronze


Prayer Room Mersburg

Two central elements of Christian religiousness shape the interior design of the prayer room at the Augustinum Meersburg. Altar and cross. The altar reduced to the form of a monolith block of marble. The cross as a wall Carpet made of alphamesh ringmesh. 5.20 metres wide and 6.50 metres high, the modern altar carpet draws the „symbol" of Christian faith as an exciting dialogue of two surface finishing's. This gives the impression of a cross from matted ringmesh would stand serenely above the background with its polished surface.

Project Prayer Room Mersburg
Land Germany
Architects LRW Architekten, Hamburg
Material
alphamesh 12.0 bronze matt (cross) and alphamesh 12.0 bronze polished

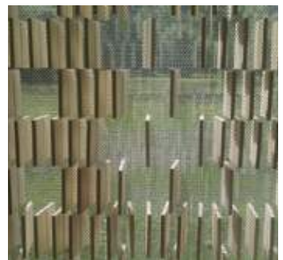



Islamic Cementary Altach

A place of the quiet for peace and prayers is what the artist Azra Akšamija designed for the Islamic cemetery at Altach. The room is special due to a richly ornamented wall in the inner room, which is whitewashed and interrupted by a wall height window in the middle. In front of this wall the artist hung three curtains offset from each other, made of alphamesh 12.0. Woven into the ring structure are gold coated wooden shingles, which trace the words „Allah" and „Mohammed" in the Kufic script.

Project Islamic Cementary, Altach
Land Austria
Design Azra Akšamija, Cambridge, USA
Material
alphamesh 12.0 stainless steel






FLEXFORM Booth Milano

Form follows function. Once more this became evident during alphamesh exhibition at the Salone Internazionale de Mobile. Extremly emotional, with elegant and discreet charm and their own stainless steel shine the alphamesh curtains staged the new designs of the Italian furniture manufacturer FLEXFORM. With translucent impressions alphamesh arouses curiosity and formed an eye catching setting to present the brand.

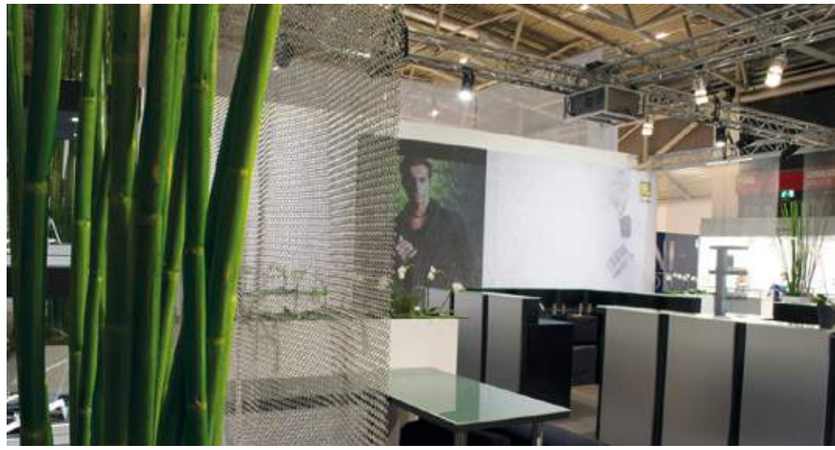
Project Flexform Booth, Milano
Land Italy
Designer FLEXFORM,
Material
alphamesh 12.0 stainless steel

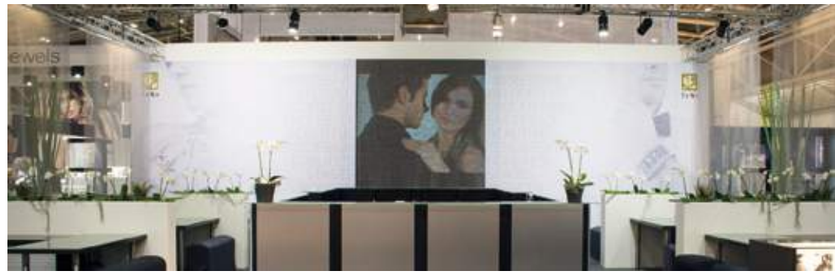
TeNo Booth Munich

inhorgenta 1

On the booth of TeNo alphamesh 12.0 impressed as a filigree translucent wall element and played perfectly the game of cover and discover. Made of stainless steel and high-gloss polished alphamesh becomes a piece of jewelry in the jewelry box of TeNo.

Project TeNo Booth, Munich
Land Germany
Design TeNo
Material
alphamesh 12.0 stainless steel





Titanfactory Booth Munich

inhorgenta 2

Quite differently alphamesh appeared on the booth of Titanfactory. Within a five-meter-high water wall alphamesh radiated a lightness of being which is normally only identified with the metal ordinal number 22.

Project Titanfactory Booth, Munich
Land Germany
Design Titanfactory
Water wall with alphamesh 12.0
2.40 x 5.10 m (w x h)

Wild Booth Bern

In the concept of the trade fair stand, the wall of water takes on the function of a closing back wall behind the launch and catering area. Its central position and the mighty dimensions of 10 x 5 metres make it visible from far away. The homogeneous seeming surface is made up of two separate parts, which hang behind each other like curtains and so provide a sculptural effect. On the two outer sides the alphamesh wall of water bends in a gentle arc of 90°, so that the individual parts are visually combined into one unit.

Project Wild Booth, Bern
Land Switzerland
Design BOST Productions GmbH together with Lian Maria Bauer.
Water wall with alphamesh 12.0
10.00 x 5.00 m (w x h)

Crown Booth Düsseldorf

The air of the casino in Düsseldorf trade fair hall. The Crown stand at the IMA 2011 shone a golden light. Shown in the continuous reflections of the bronze alphamesh ring-mesh which covers the back wall of the bar and enthrones itself atop a voluminous lampshade that is clearly visible above the stand.

Project Crown Booth, Düsseldorf
Country Germany
Design G+P, Gesellschaft für temporäre Projekte, Harsewinkel
Material
alphamesh 12.0, bronze polished

Schmolz + Bickenbach Booth Düsseldorf

It's only alphamesh that holds back the five meter free fall of the water on Schmolz + Bickenbach Booth at the "Tube & Wire" in Düsseldorf. Impressive at first sight the new mobile water wall develops fast to the vivid focus of the booth. Everybody who was able enjoyed the pleasant climate near to the falling water. Or uses the natural curtain to find a private place for personal or business matters.

Project Schmolz + Bickenbach Booth
Country Germany
Architects
HDW Partner GmbH, Offenbach
Water wall with alphamesh 12.0
2.40 x 5.10 m (w x h)

alphamesh Booth Munich

Five meters high. A dream of illuminated steel. And a stage for an impressive water wall. The promesh booth shows what alphamesh 12.0 really is. Stunning. Beautiful. Inspirational. And magical. - an open source for more than 1001 ideas.

Project alphamesh Booth; Munich
Country Germany
Design proMesh GmbH, Mühlacker
Water wall with alphamesh 12.0
2.40 x 5.10 m (w x h)

Steffel Department Store Vienna

Twice over has alphamesh enjoyed the opportunity of "welcoming" the Steffl department store customers in Vienna. Installed as a ceiling-high divider element, the alphamesh 12.0 stainless steel structure serves to elegantly showcase the fine leather goods department. The designers then use alphamesh in bronze as a see-through partition wall in a two-sided shelving system. With a here-and-there effect created by the items on display all being visible from both sides.

Project Steffel, Vienna
Country Austria
Architects Arge 2, Innsbruck
Material
alphamesh 12.0 stainless steel
alphamesh 12.0 bronze




Pfüller Department Store, Frankfurt

For new flagship facilities in Frankfurt's traditionally top-tier fashion department store, the architects went on a search for the exceptional. Their choice fell on alphamesh, used as a wall hanging and as a stairway lighting system in the alphamesh 7.0 stainless steel version. With its rigorously elegant sweep the seven metre long backlit ring mesh may not showcase the fashion directly but it effectively highlights the setting's very special design aspects.

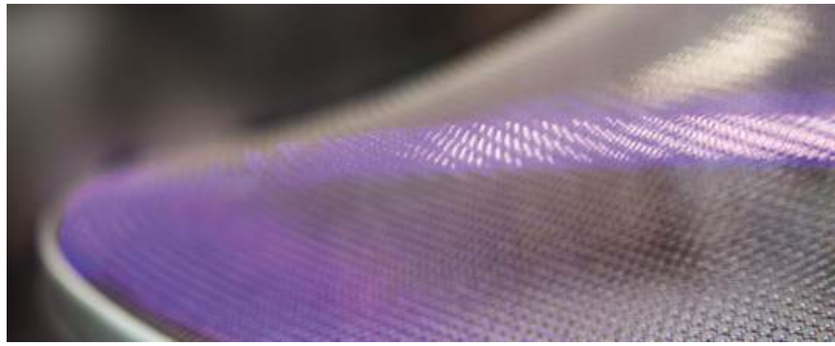
Project Pfüller, Frankfurt
Country Germany
Architects
Frick&Frick, Frankfurt
Material
alphamesh 7.0 stainless steel




G3 Gerasdorf

180 shops on a surface of 58,000 m². The G3 Shopping Resort Gerasdorf near Vienna belongs to the quite big shopping experiences in Austria. 500 long and 20 meters a wave of wood floats above the fifth largest shopping area of Austria and protects the events inside - a lot of place to accompany seasons and events with creative decorations - as for the top-selling time before christmas for which the Austrian lighting specialist Blachere Illumination developed an emotional light concept. During the search for new ideas the light specialists discovered the versatile alphamesh ringmesh. Quickly the base for a common project was found. A Christmas tree made of ringmesh, dynamically illuminated by LEDs was the requirement. This was a challenge for proMesh because they had to develop a product completely new. In particular the styling and fixation of the ringmesh to the formative metal rings challenged the innovation mind of the development department and the prototype constructors more than once. However, in the end, all penetrating questions could be solved and the alphamesh Christmas trees could be brought on time on the way to Gerasdorf.

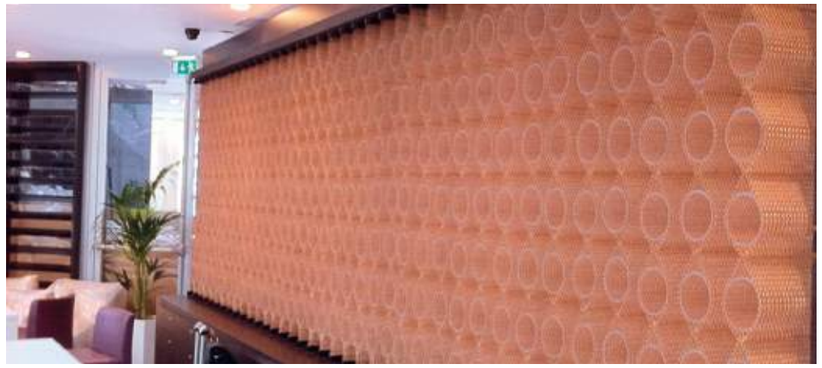
Project Shopping Resort Gerasdorf
Country Austria
Architects
Blachere-Illumination, 4600 Wels / Designatelier Rainer Mutsch
Material
alphamesh 7.0 stainless steel




JW Marriott Cannes

It is a wine rack made of alphamesh that leads the way to the JW Grill at the JW Marriott in Cannes - one of the most luyury hotels at the Boulevard de la Croisette. In gentle waves the designers formed the alphamesh 7.0 bronze mesh to more than 250 elementary spaces. In every detail designed to be representative and keep fine wines in a safe place.

Project JW Marriotts, Cannes
Country France
Material
alphamesh 7.0 bronze



Tian Vienna

27 September 2013. The TIAN, Temple of conscious enjoyment at Himmelpfortgasse in Vienna, opens up the TIAN Wine bar in the basement. Amongst the guests: alphamesh 7.0 Bronze. Not in front of the bar. And not behind it. Rather the luxurious ring mesh prepares the setting for drinking fine wines. Distinctive as the centre of attention - the design is a gathered antimacassar over the bar of the wine bar, which shines elegantly in the flattering bronze light.

Project Tian, Vienna
Country Austria
Architects
Müller-Fuchs, 8063 Hart-Purgstall
Material
alphamesh 7.0 bronze

Opposite House Beijing

Cool and cosmopolitan. Elegant and glamorous. And yet cosy and attractive. Such were the architects' aims for the lounge in The Opposite House luxury hotel. The alphamesh ring-mesh, which combines polished stainless steel with its stark elegance with the appearance and surface feel of cloth, was ideal for these aims. And they also used alphamesh as a projection screen for colourful slide shows and designed a ceiling-height wine rack on the wall behind the bar.

Project The Opposite House, Beijing
Country People's Republic of China
Architects
KENGO KUMA & ASSOCIATES, Tokio
Material
alphamesh 12.0 stainless steel

The May Fair London

The May Fair Hotel in Mayfair, the heart of London. A symbol of luxury and grand hotel service. And because the guests at the May Fair are entitled to expect the extraordinary, the "Cigar Room" outdoor smoking area recreates the outdoors in. A cosy yet innovative meeting place made to measure for the alphamesh scale 5.8 aluminium mesh which strikingly encases the area in sweeping panels to cover the surrounding glass structure elements, letting the space breathe. In the evenings, with its artful play of lights, the scale mesh provides a unique, diffused sheen recreating the Cigar Room's very special aura.

Project The May Fair, London
Country England
Material
alphamesh 5.8 scale aluminium

Waterwall Salem

The water in the office building falls from a height of over 3 floors. Sometimes gentle, sometimes fast and furious. The falling water is guided downwards by alphamesh tracks over a height of 8 metres. It almost appears as if the stainless steel rings want to stop the water. This leads to an independent symphony of braked wave rhythms which eventually succumb to the force of gravity.

The water feature is accentuated by light compositions which change rapidly and shine onto the water. However, it isn't only an impressive sight. It also benefits the room climate, as the humidity of the room is balanced out and the gentle babbling sound create a sense of well-being in the room.

Project Wasserwall, Salem
Country Germany
Architects
Metallatelier Fuchs, Deggenhausen
Material
alphamesh 12.0 stainless steel

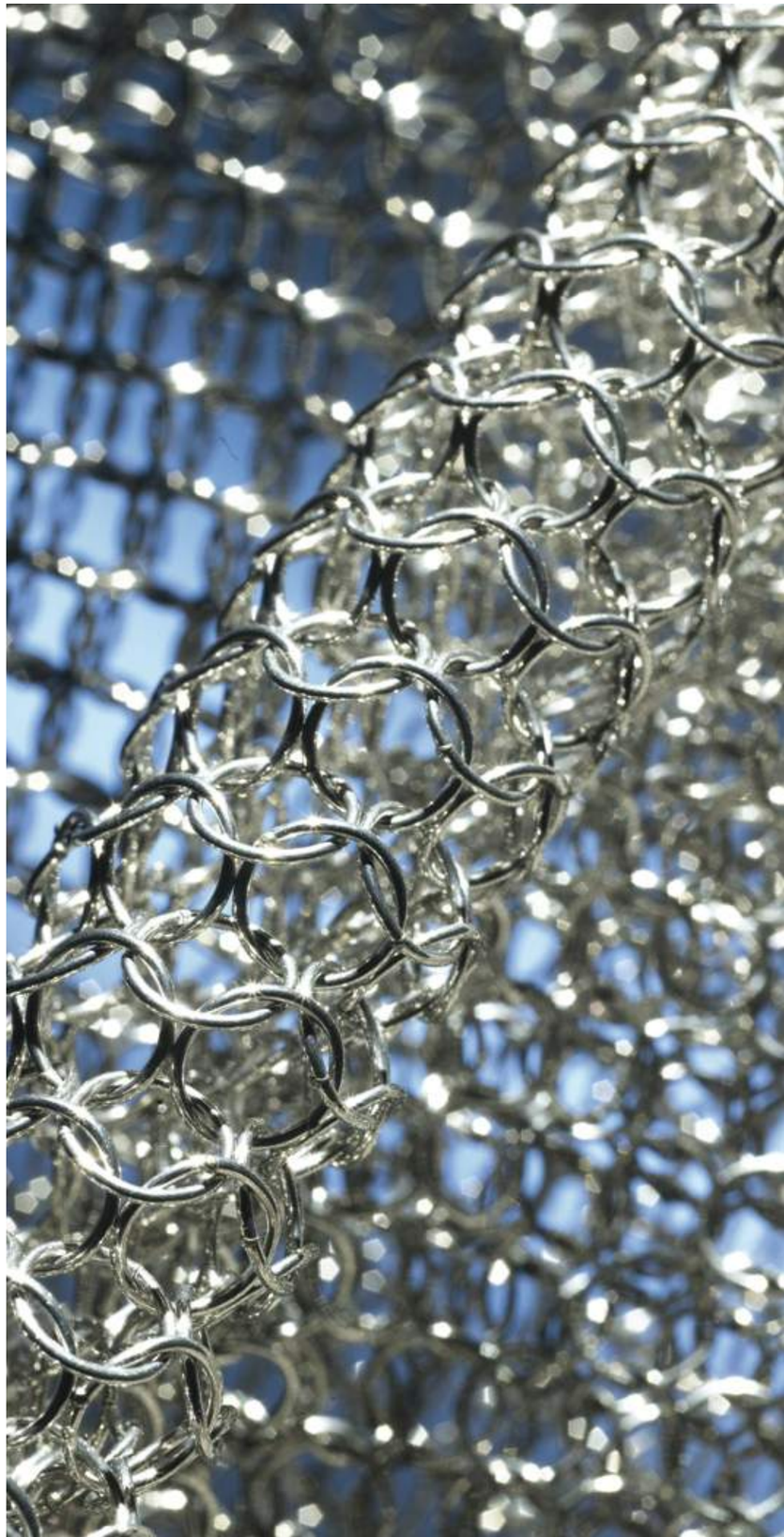
Mankind has always marvelled at the medium that is water, since water lets almost nothing stop it.
A small piece of the magic that is the natural waterfall is accentuated when alphamesh and water come together. And yet water and alphamesh are not only exhilarating to the senses. Just as it does in the natural world, water also has a vast range of uses indoors. It clears the air of airborne particles and acts as a humidifier, providing a pleasant room climate.

Focus Light

With alphamesh it is possible to define a type of architecture which continuously interprets space in new ways.

The same applies to the medium of light. Therefore, when they are combined, alphamesh and the light which accompanies it determine the perception of the space and the architecture. When used properly, light can accentuate the impact of alphamesh, but alphamesh can also do the same for light. When metal and light are combined, you can be sure it will always be fascinating. And since the ring-mesh reflects the light in every single one of its rings and with different levels of intensity, vibrant visuals always result.

When alphamesh and light meet, visuals with particularly radiant effects are produced.
The light sources, ring diameters and specific configuration of the alphamesh are the factors which shape this creative play with light. And yet alphamesh is not only superb in terms of the interplay between light and shadows.
The ring-mesh is also suitable for clear, sharp and reflex-free projections and therefore all uses for communications with light or in which light is used.



Solar protection

IThe fact that alphamesh performs impressively in engineering applications relating to energy-efficient construction works and systems, has been substantiated by the measurement test data established in conjunction with the ZAE, the Bavarian Research Centre for Applied Energy. To be specific, testing has been conducted on the light transmission, light reflection and light absorption data by alphamesh 7.0 and 12.0 in the solar, human-eye and ultraviolet spectral ranges.

What came as a surprise is that for a material having a free surface area of over 60 percent, the ring-mesh provided some really outstanding results: the data readings on an outdoor alphamesh sunscreen showed an incident radiant heat reduction of up to 24 percent, and this without darkening the room.

Green Building. Green Construction and Sustainable Building. Energy efficiency. Cost-effective resource utilisation. Along with its top-notch quality and structurally engineered features, the test results now endorse the introduction of alphamesh for futuristic, sustainable applications.

Solar and photometric values in accordance to EN 410

	alphamesh 12.0 x 1.1			alphamesh 7.0 x 0.7		
	$\tau_{nh.solar}$	$\tau_{nh.VIS}$	$\tau_{nh.UV}$	$\tau_{nh.solar}$	$\tau_{nh.VIS}$	$\tau_{nh.UV}$
polished	0.65	0.65	0.65	0.64	0.64	0.63
matt	0.64	0.64	0.63	0.60	0.59	0.59

	$\rho_{nh.solar}$	$\rho_{nh.VIS}$	$\rho_{nh.UV}$	$\rho_{nh.solar}$	$\rho_{nh.VIS}$	$\rho_{nh.UV}$
polished	0.11	0.10	0.07	0.15	0.14	0.10
matt	0.06	0.06	0.04	0.06	0.05	0.04

	α_{solar}	α_{VIS}	α_{UV}	α_{solar}	α_{VIS}	α_{UV}
polished	0.24	0.26	0.28	0.21	0.22	0.27
matt	0.30	0.31	0.32	0.35	0.36	0.37

External solar protection - Reduction ratios according to EN 13363-1

	VG B		VG C		VG D		VG B		VG C		VG D	
	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3
polished	0.56	0.75	0.50	0.76	0.52	0.73	0.55	0.73	0.48	0.74	0.51	0.71
matt	0.56	0.74	0.49	0.75	0.52	0.72	0.53	0.70	0.46	0.71	0.48	0.67

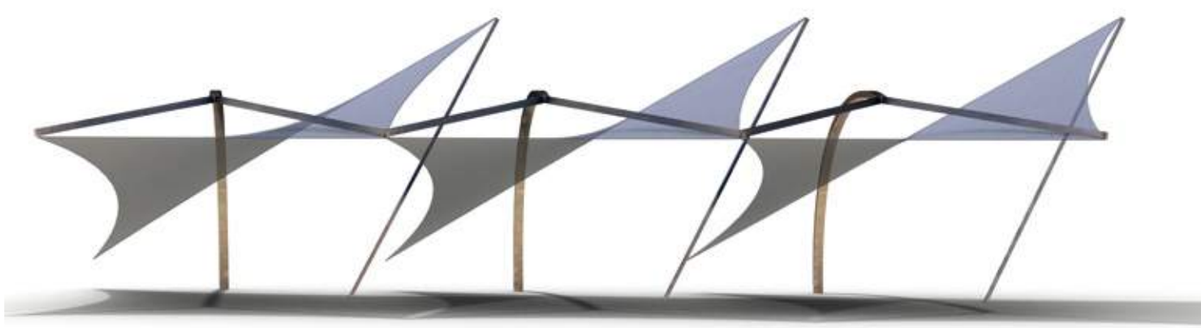
Internal solar protection - Reduction ratios according to EN 13363-1

	VG B		VG C		VG D		VG B		VG C		VG D	
	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3	g	F_c^3
polished	0.66	0.89	0.59	0.91	0.65	0.90	0.64	0.86	0.57	0.88	0.63	0.87
matt	0.68	0.91	0.60	0.93	0.67	0.93	0.68	0.91	0.60	0.93	0.67	0.93

Glazing B (VG B) : double-glazed; U_g = 3.0W/(m²K) and g = 0.75; Glazing C (VG C) : triple-glazed ; U_g = 2.0W/(m²K) and g = 0.65; Glazing D (VG D): double-glazed with heat insulation coating U_g=1.6W/(m²K) and g = 0.72 g = Energy transmission / F_c^3 = Reduction ratio

Free-form surfaces

In its search for new challenges and freedoms, alphamesh has discovered the free-form surface as its very own creative potential.
Malleable and gently-hanging ring-mesh made out of stainless steel.
What could be more appropriate than thinking about free-form surfaces which are not defined in the context of their construction? Or about textile architecture and seemingly fragile designs in which alphamesh plays with both the light and the lightness of being.



alphamesh Ring Mesh

12.0 stainless steel
Material: stainless steel 1.4404

Ring Diameter: 12.00 mm
Wire Gauge: 1.10 mm
Weight: c. 3.06 kg/m²
Tensile Strength: approx 53 kN/m
Open Area: c. 63 %

12.0 bronze
Material: bronze CuSn6

Ring Diameter: 12.00 mm
Wire Gauge: 1.10 mm
Weight: c. 3.45 kg/m²
Tensile Strength: c. 33 kN/m
Open Area: c. 63 %

12.0 bicolor
Material: stainless steel AISI 316L / bronze CuSn6
Ring Diameter: 12.00 mm
Wire Gauge: 1.10 mm
Weight: c. 3.26 kg / m²
Tensile Strength: c. 33 kN/m
Open Area: c. 63 %

Surfaces: nature, polished, dull
Mesh width ex works width: 1.00 m - 9.60 m height: max. 15.00 m
Further dimensions on request

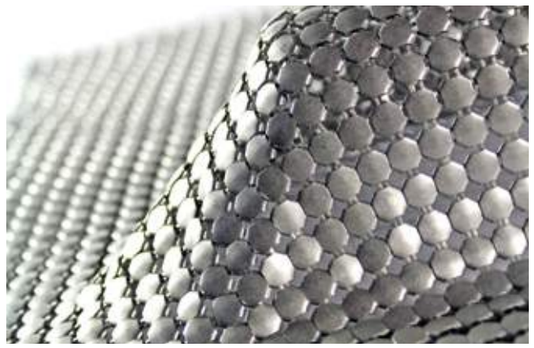
7.0 stainless steel
Material: stainless steel 1.4404
Ring Diameter: 7.00 mm
Wire Gauge: 0.70 mm
Weight: c. 2,2 kg/m²
Tensile Strength: c. 23 kN/m
Open Area: c. 60 %

7.0 bronze
Material: bronze CuSn6
Ring Diameter: 7.00 mm
Wire Gauge: 0.70 mm
Weight: c. 2,49 kg/m²
Tensile Strength: c.15 kN/m
Open Area: c. 60 %

Surfaces: nature, polished, dull
Mesh width ex works width: 1.00 m - 5.00 m height: max. 5.00 m
Further dimensions on request

alphamesh Scale Mesh

5.8 aluminium
Material: aluminium AlMg3
Scale Size: 5.80 mm
Weight: c. 1.50 kg/m²
Tensile Strength: c. 6.67 kN/m

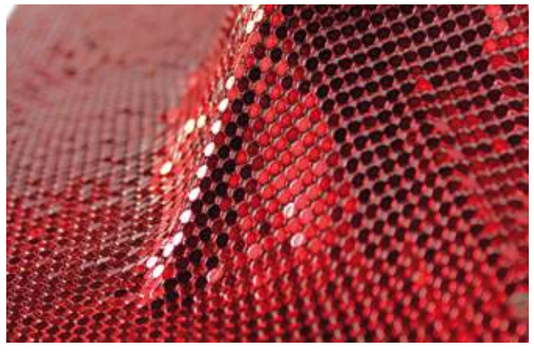


5.8 brass
Material: brass CuZn37
Scale Size: 5.80 mm
Weight: c. 3.40 kg/m²
Tensile Strength: c. 6 kN/m

Surfaces:
nature, polished, colored (transparent or varnish)
Mesh width ex works
width: 1.00 m - 3.00 m height: max 6.00 m
Further dimensions on request

Colours:
available in all RAL colours

2.5 aluminium
Material: aluminium AlMg3
Scale Size: 2.95 mm
Weight: c. 0.80 kg/m²
Tensile Strength: 3.20 kN/m



2.5 brass
Material: brass CuSn3Zn9
Scale Size: 2.95 mm
Weight: c. 2.20 kg/m²
Tensile Strength: 6.13 kN/m

Surfaces:
nature, polished, colored (transparent or varnish) Mesh width ex works
Width: 0.60 m - 3.00 m height: max. 3.00 m
Further dimensions on request

Colours:
available in all RAL colours

Attachment and Installation

Ceiling installation with keder profile and round plate attachments

Wire cable hanging with keder profile

Tensile wall attachment with keder profile

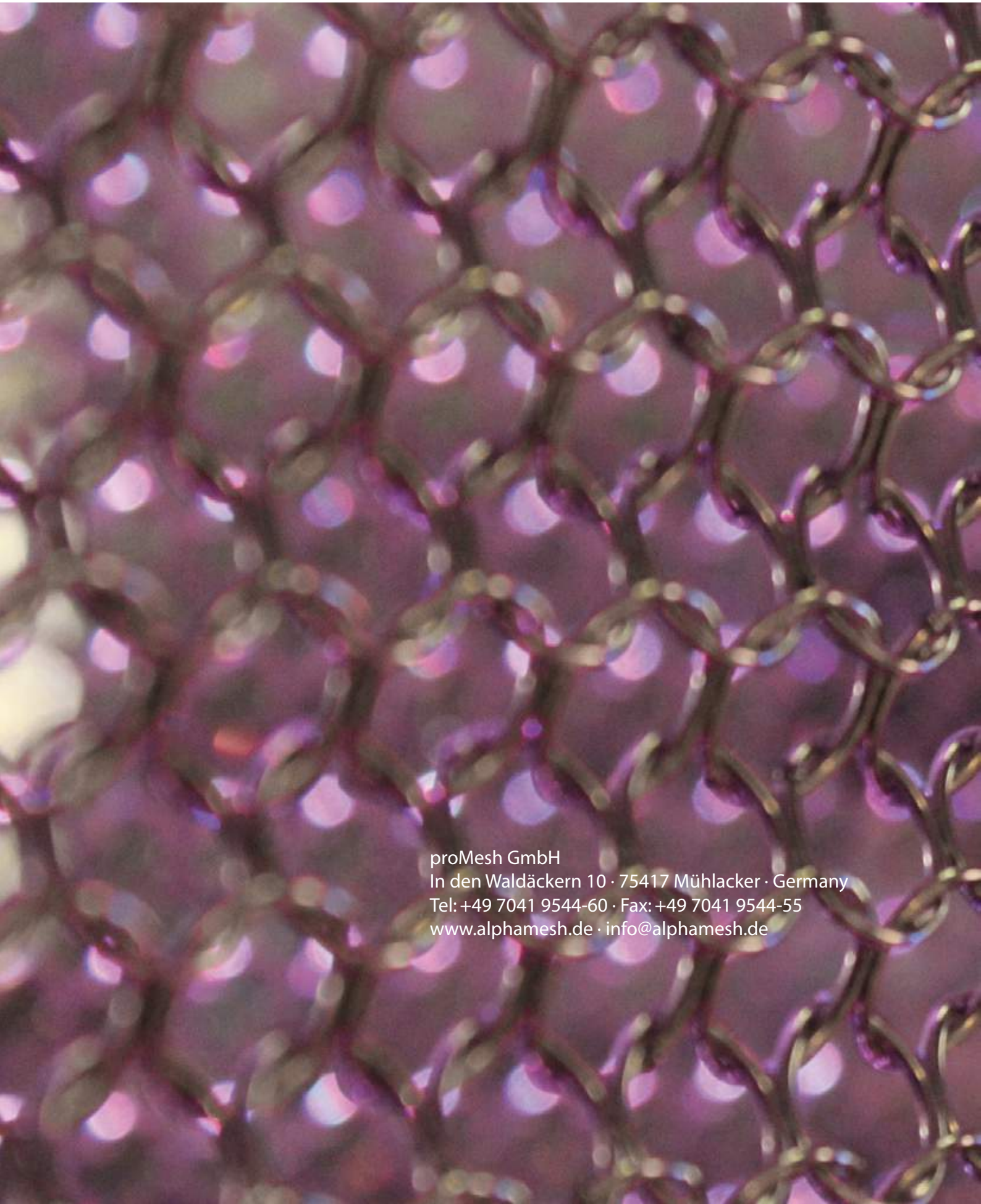
Pull-across blinds with folding mechanism

Meander curtains with shaft mounting

Stainless steel
keder profile

Shaft fastening
with edge stitch

Straight
shaft fastening



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