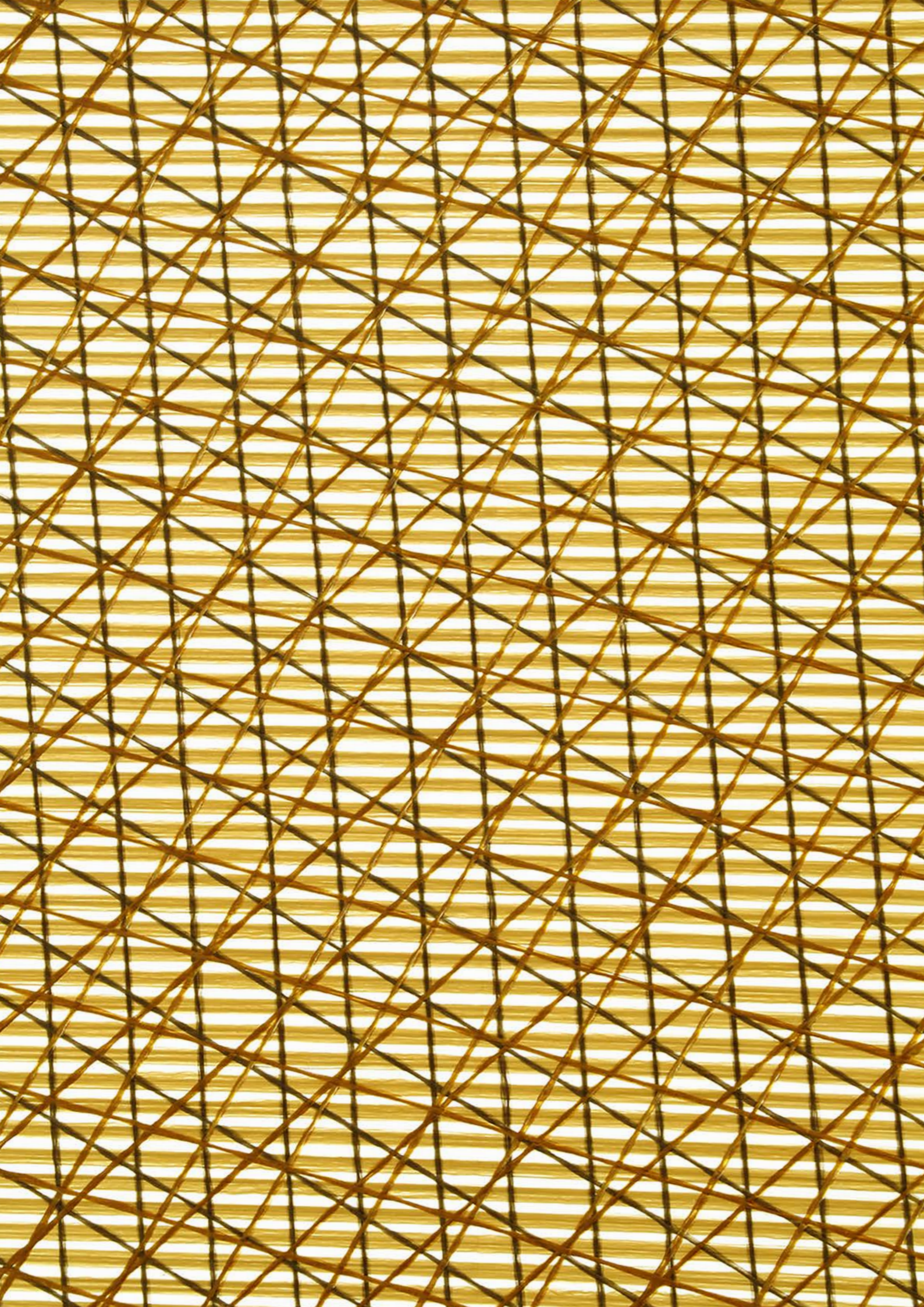


i-Mesh

Company Profile 2019
English version

**Our mission is not ordinary,
because we work everyday
to open and soften the formal,
materic and design stiffness,
universally perceived as
architecture.**



What's i-Mesh?

It's a patented, award-winning, sustainable and fully customizable fabric, born just for architecture, design, art and poetry.

i-Mesh is a **technical and sustainable textile for architecture**, a brand new patented technology conceived after years of internal research in the marine and aerospace context.

It's an absolute novelty within the construction market: a non-woven textile made of **durable and unbeatable fibers**, that can be applied both to outdoor and indoor installations.

i-Mesh is produced only in form of bespoke panels. It means that **we do not produce waste**, because we provide tailored shapes for each project and we reuse scraps for arts, research and development.

It doesn't matter if it's **art or science** what we must deal with, as we love both equally. That's why i-Mesh is just what visionary thinkers need.



Monte Conero, Marche - Italy

A motley team into a glocal company

After 30 years of experience in marine and aerospace textiles, we enhanced our teamwork by adding architects, creatives and designers.

i-Mesh is a result of theoretical and visual studies on the essential characteristics of the textile fibers, which derive from the **pluriannual experience** within the product design market and technical fabrics in the **nautical and aerospace fields**, on which we are required to comply with the highest levels of **performance and security**.

After 30 years of experience, we have enriched our team with talented **architects, designers, creatives and computational engineers**, in order to direct our view into a fresh, open source and technological approach.

i-Mesh is produced in **Italy**, within the amazing country landscape lying at the foot of Mount Conero, just in front of the Adriatic Sea, a marvellous scenery that hosts the intellectual and industrious work of our Team, able from here to offer the best assistance to the customers worldwide, as well as an excellent on-time delivery performance.

A glocal and sustainable philosophy oriented to a globalized world.



Fixed sun shading

Citterio Italian Pavillon - Expo Milano 2015

INDOOR / OUTDOOR

Indoor elegance, outdoor behavior

Separating without dividing through an airwall, refresh yourself as never before under a sun shade system or just sit, relax and cherish the wonderful i-Mesh's lights and shadows game.

i-Mesh is used for **separating** the workstations within the modern co-working spaces and contemporary offices **without dividing the ambients**, as well can be overturned horizontally to cover the technical plants and spread the light within your shop in a charming way.

The **excellent technical characteristics** of the fibers when used **outdoor** allow to reduce the thermal comfort by 3°C under the shaded area deriving from the horizontal or vertical panel made of i-Mesh.

The lightness, design uniqueness and its easy installation methods, as well as its easy reusing and stocking possibilities, make i-Mesh be an **excellent material for exhibition fittings or as scenography** of great visual impact.

Its **flexible production system** allows designer to go further, using this fabric for light design, or wearable for haute couture fashion, setted on a wall as an ancient tapestry or an edgy piece of art.



Indoor: Airwalls and Curtains

Lavermicocca Showroom 2016



INDOOR

**Be alone with everybody:
an unprecedented
interior solution**

i-Mesh is used for **separating** the workstations within the modern co-working spaces and contemporary offices **without dividing** the ambients;



Airwall



Ceilings



Curtains



Softwall

As well it can be overturned horizontally to cover the technical plants and spread the light within your shop in a charming way.

The **lightness, design uniqueness** and its **easy installation** methods, as well as its reusability and stocking possibilities, make i-Mesh be an excellent material for exhibition fittings or as scenography of great visual impact.



Temporary Setup



Scenography



Design



Fashion

Its **flexible production system** allows designer to go further and use this fabric for light design, or for haute couture fashion, setted on a wall as an ancient tapestry or an edgy piece of art.



Airwall and Softwall
A revolutionary way to create privacy and soften the common rigid human spaces.

Nowadays charismatic workspaces are designed to stimulate creativity and encourage social interaction with members and different teams. For these innovative places, i-Mesh Airwall™ is the best solution to create visual privacy while maintaining an uninterrupted airflow. These extra light screens are great for separating areas in coworking spaces, or a reception area from other workspaces, or for hiding technical devices.

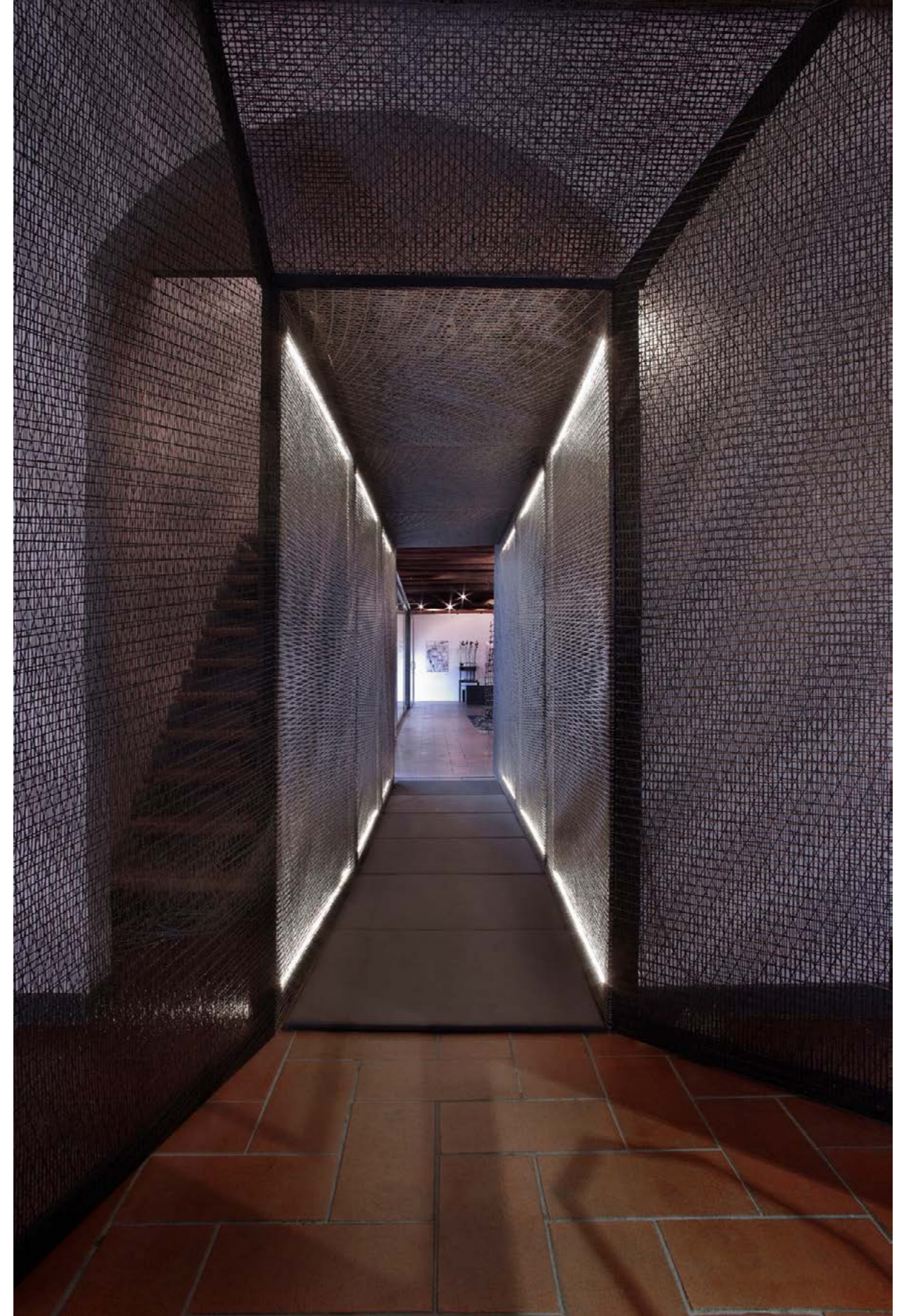


Temporary Architecture for Fairs and Events
A2 India Stand



Curtains - Soft divider

Walter Knoll, Salone del Mobile 2015



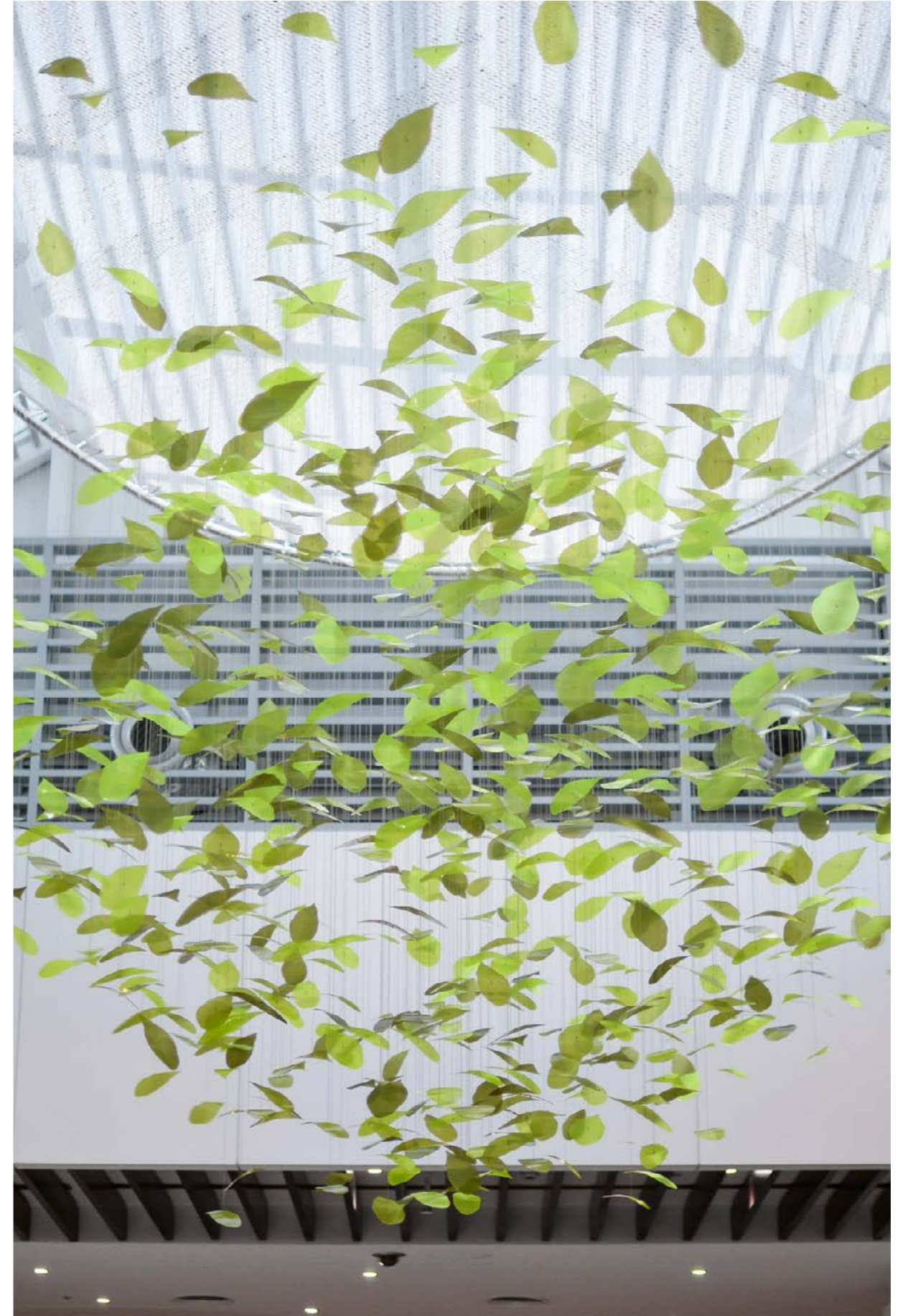
Softwall

Alik in Wonderland - Fuorisalone, Milano 2013



Ceiling as branding light diffuser

Mondadori Store, Milano 2015. Project by Migliore+Servetto



Elliptical ceiling

David Harbour design, 2016

INDOOR APPLICATIONS



Big screens for scenography

Puzzle Me! at Teatro della Triennale, Milano 2015



Big screens for scenography

Puzzle Me! at Teatro della Triennale, Milano 2015



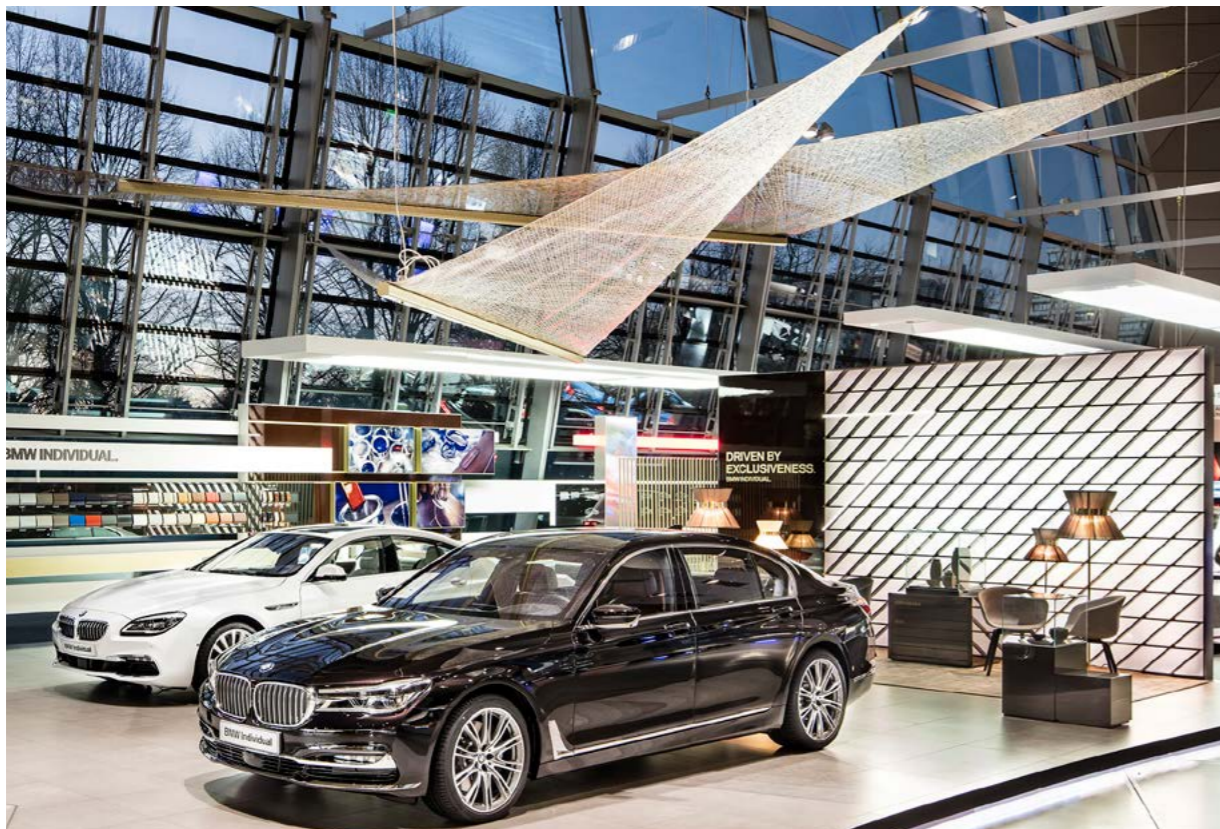
Temporary Setup / Stand for fairs
Walter Knoll, Salone del Mobile 2015



Light Design
Davide Montanaro Design



Light Design
Atara Design

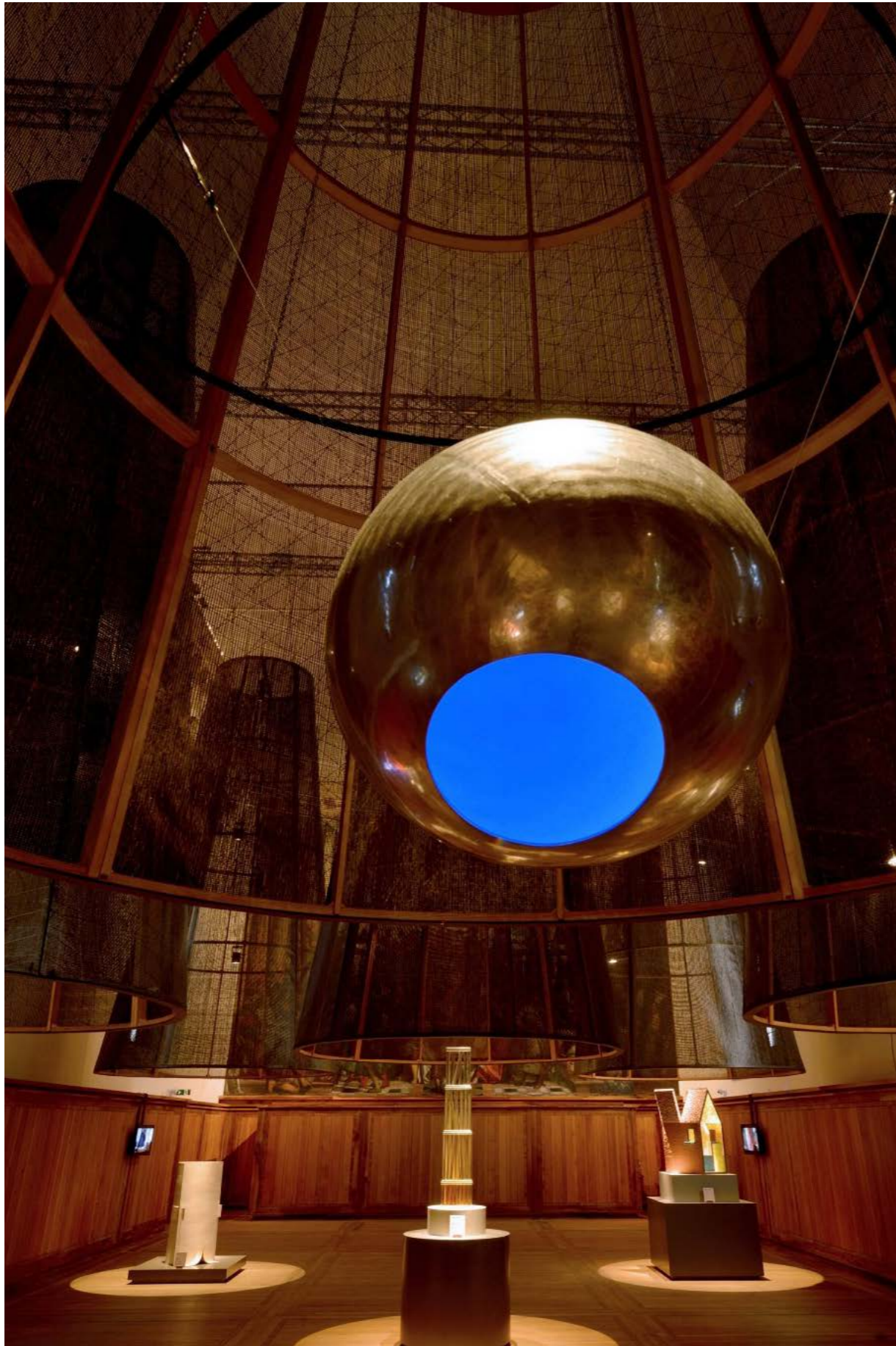


Temporary Installations
BMW Welt, Munich 2016



Wearable i-Mesh
United Standard, Milano Fashion Week 2019





Temporary lighting setup
Homo Faber - Venice 2018



Temporary lighting setup
Homo Faber - Venice 2018

OUTDOOR

**Charming and strong:
a unique solution against
extreme heat**

i-Mesh characteristics are expressed at best as shading system. Our shading solutions allow to **see the sky without being dazzled**: a unique effect without competitor in the market.



Sun Shading

fixed



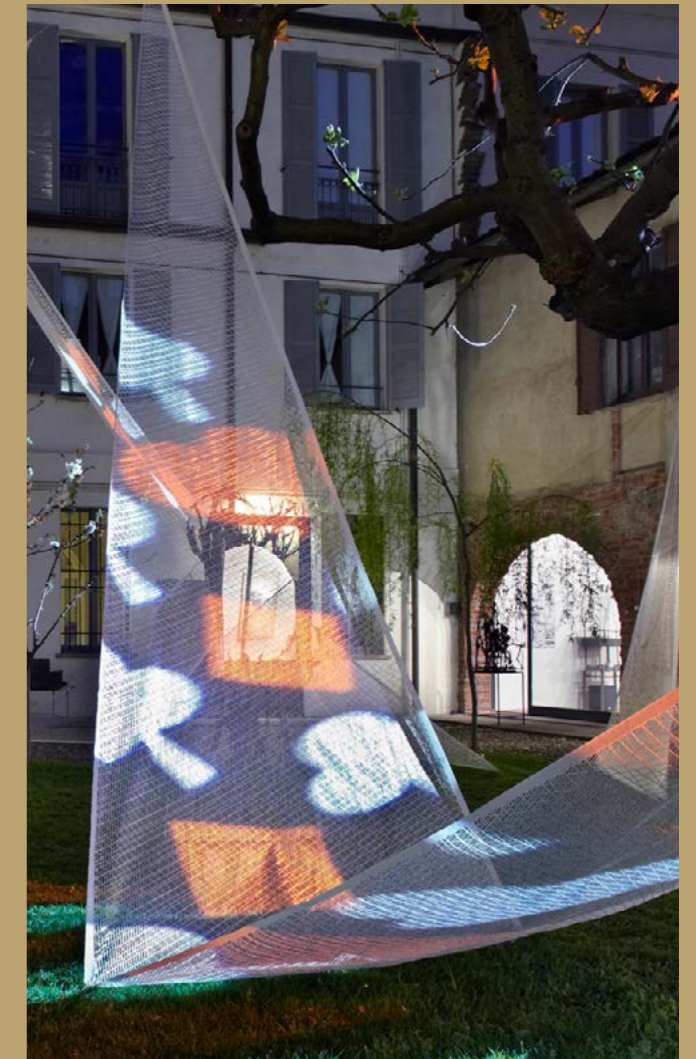
Sun Shading

folding

The **excellent technical characteristics of the fibers**, when used outdoor, allow to improve the thermal comfort under the shaded area deriving from the horizontal or vertical panel made of i-Mesh.



Facades



Temporary Setup

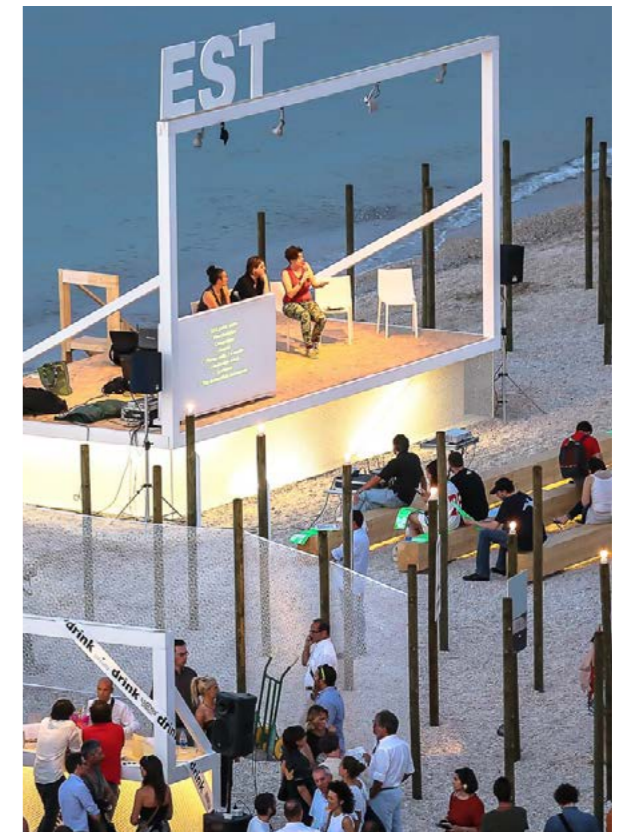


**Sun shading and facade:
an elegant solution to create thermal comfort.**

i-Mesh characteristics are expressed at best as shading system. The i-Mesh shading solutions allow to see the sky without being dazzled: a unique effect without competitor in the market. The extremely wide customization possibilities under the structural and aesthetic aspect, enables us to compose the most proper texture, depending on the effort that the membrane should bear.



Folding sun shading system
Pieve Torina 2019



Temporary Event Setting
Demaino Marittimo, Marzocca 2015



Vertical sun shading system

Demanio Marittimo km.378, Macerata 2014



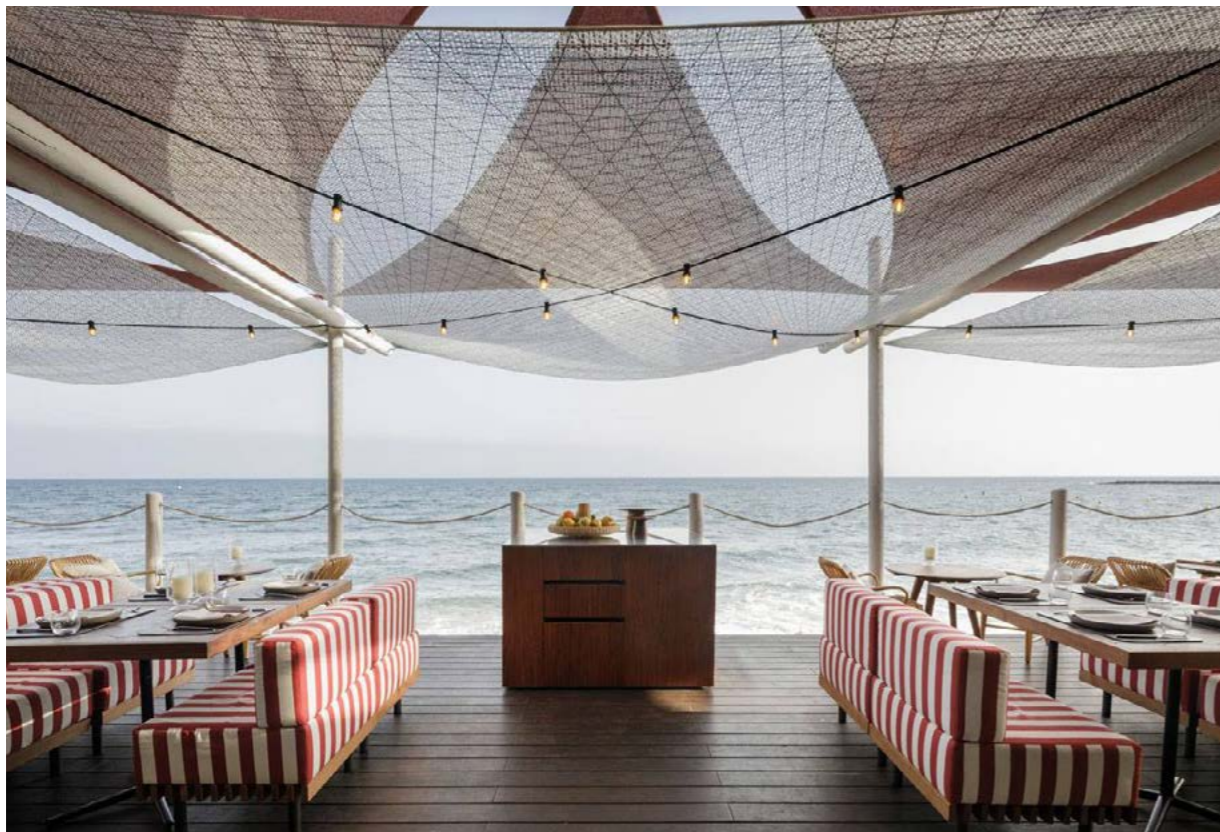
Vertical sun shades on facade

Solar Decathlon Middle East, Dubai 2018



Temporary installations

Alik in Wonderland - Fuorisalone, Milano 2017



Horizontal sun shading system

Soleo Marbella, Marbella 2016



Triangular sun shading system

Don Rigoldi, Milano 2015





Horizontal sun shading

Demanio Marittimo - Marzocca 2015

TECHNICALS

**Strong, light, durable.
The mesh coming
from the future**

Fire Resistance

i-Mesh is certified A-Class for ASTM tests and Class-1 for European standards, so the best ratings in matter of fire resistance in the construction market, suited for public installations.

Durability

Ageing tests and real life installations in extreme weather conditions show no changes in the performance or colour of the material.

Recyclability

The material is composed of just two parts: the fiber and the resin. The resin has a thermoplastic origin, therefore both components can be separated and re-used.

Zero Waste Philosophy

With conventional fabrics, converters buy rolls of material and create a substantial amount of waste transforming the fabric into a panel. With i-Mesh, no industrial waste is generated because it is produced custom, exactly in the shape and pattern desired.

Lightweight

The fibres we use have the best strength-to-weight ratio and they are placed only where needed. The outcome is a lightweight material: that means cheaper shipping costs, compact sizes and low energy consumption.

Thermal Comfort

i-Mesh is classified as cool material, reflecting the solar irradiation. The use of i-Mesh fiberglass on facades improves the indoor thermal comfort during the hottest months. Additional refreshing properties are enhanced by its capability of letting the wind blow through gently.

Easy Installation

The installation of i-Mesh has a very simple procedure and spins savings in matter of manpower, as no skilled worker is needed, you can install it yourself.

Reusability

i-Mesh panels generate considerable savings over the short and medium term due to its natural mechanical resistance, hence they may be installed and stowed away regularly event after event, or re-cut for a new installation.

Natural Ventilation

The permeability of i-Mesh panels enables natural ventilation to flow, both on vertical applications (so on building facades) and on horizontal ones.

Light Properties

Daylight simulations together with physical data, show that i-Mesh is a great light diffuser. Compared to a metallic shading device, it reduces glare discomfort whilst producing a higher lux ratio inside the space, creating a comfortable inside-outside visual.



Strong

Durable

Sustainable

Ready-To-Install

Lightweight

Recyclable







Re-Usable



Six natural solution

The six basic colours are the natural colours of the fibers. We make no use of paint, in order to save additional costs, time and environment.

The mineral ones - Carbon, Glass and Basalt - are steady over time even after 20 years, in matter of sunlight exposure and reflectance to light and heat.

			TENSILE STRENGTH TO WEIGHT	HEAT REFLECTANCE	COLOUR CHANGE BY UV	COLOUR	LIGHT TRANSMITTANCE	STRENGTH AFFECTED BY UV	COLOUR CHANGE BY UV	COST
	<p>Zylon® very high breaking load and value of modulus; excellent creep and heat resistance.</p>	ZYLON MAN MADE	very high	low	no	copper	no	yes	no	very high
	<p>Carbon fibers have several advantages including high stiffness, high tensile strength, low weight, high chemical resistance, high temperature tolerance and low thermal expansion.</p>	CARBON MINERAL	very high	no	no	black	no	no	no	high
	<p>Fiberglass is excellent for outdoor solutions because steady over time, due to its capacity of resistance to sunlight exposure and excellent in the matter of reflectance to light and heat.</p>	FIBERGLASS MINERAL	moderate	low	no	white	medium	no	no	medium
	<p>Technora® is a very strong fiber - eight times as strong as steel - and has great heat and chemical resistance.</p>	TECHNORA MAN MADE	high	medium	yes	gold	low	yes	yes	medium
	<p>Basalt fibers has similar characteristics to fibreglass but has better physico-mechanical properties.</p>	BASALT MINERAL	moderate	low	no	brown	no	no	no	medium
	<p>Vulcano derives from the volcanic rock which is enriched in order to enhance its mechanical, thermic and chemical performances.</p>	VULCANO MAN MADE	moderate	medium	no	champagne	moderate	no	no	medium

Fibers mechanical characteristic

MATERIAL	TENSILE STRENGHT Npa	DENSITY g/cm3	SPECIFIC STRENGHTKN m/kg
Aluminium Alloy (6061-T6)	310	2.70	115
Stainless Steel (304)	505	8.00	63.1
Zylon	5800	1.54	3766
Carbon Fiber	4300	1.75	2457
Technora	3620	1.44	2514
Basalt Fiber	4840	2.70	1790
Glass Fiber	3400	2.60	1307

i-Mesh technology

MATERIAL	TENSILE STRENGHT Npa
FIBERS	Glass, Basalt, Carbon, Technora, Zylon, Vulcano
COMPOSITION	60% fibers - 40% thermoplastics
	PVC FREE
WEIGHTS	from 116 gr/sqm to 1000 gr/sqm
SIZE	unlimited
MECHANICAL PROPERTIES	on specification

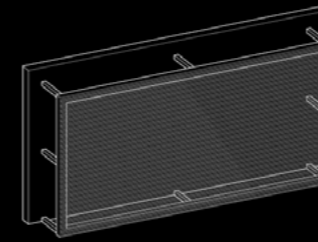
NORMATED TESTS	PROPERTY	STANDARD
COMPOSITION	Polymer/fiber ratio by TGA	ASTM E1131
	Thermal conductivity	ISO 22007-4
PHYSICAL	Relative density	ASTM D792
	Normal density Mass per Unit Area of Fabric	ASTM D3776/D3776M
	Specific heat	ISO 11357-4
	Light transmittance	ASTM D1003
OPTICAL	Reflectance	ASTM E903
	Gloss	ASTM D523
	UV-B	ISO 4892
AGEING	UV-B	ISO 4892
ACOUSTICS	Reverberation	ISO 11654:1998

CERTIFICATIONS	STANDARD	RESULTS
FIRE RETARDANCY	UNI 9174:1987+A1:1996 UNI 9176:1998	ITA Class 1
	EN ISO 11925-2:2010	EU B-s1-d0
	ASTM_E84_16-068A	Class A
	CAN ULC S102 16-068B	FSR: 10 - SDC: 35
REFLECTANCY	ASTM E903	70 %
CE	EN 416	Plafoni in tensione
LEED EVALUATION		Up to 34 points

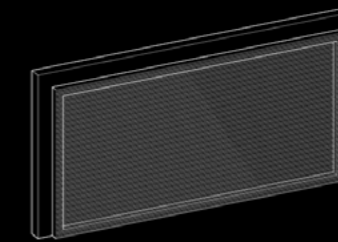
Easy to install

The innovative production system cuts out a number of manufacturing phases and makes the product economically competitive, compared to materials with lower performances but which are subjected to a longer sequence of manufacturing phases.

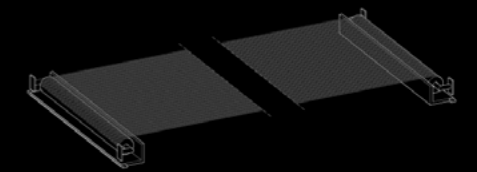
i-Mesh make the noblest natural and Man-made fibers affordable. The cost of an i-Mesh finished panel ready to be installed is comparable to the cost of the same panel made with conventional, low performance fabrics, because i-Mesh cuts out an amount of manufacturing phases. The utilization of high performing materials grants a greater environmental sustainability and long lasting performances. Using i-Mesh, the textile architecture becomes a tangible alternative to the more traditional materials of currently utilized.



Aluminium
Indoor/Outdoor



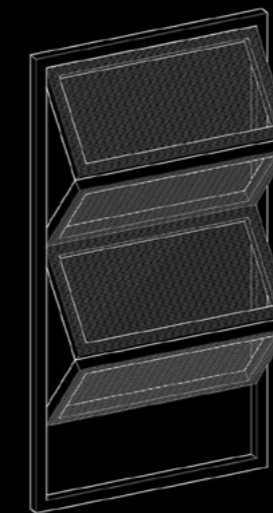
Aluminium
Indoor/Outdoor



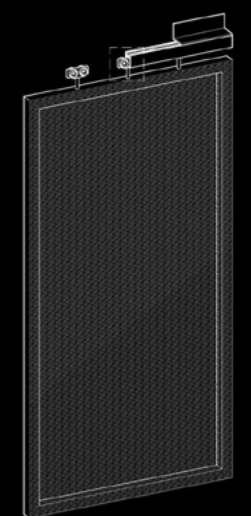
Stainless steel
Indoor



Aluminium
Indoor/Outdoor



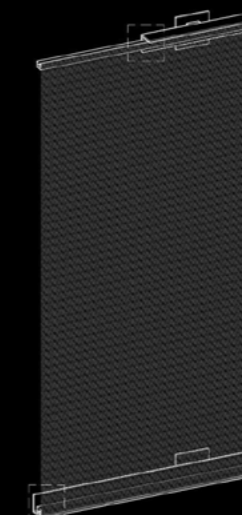
Aluminium
Outdoor



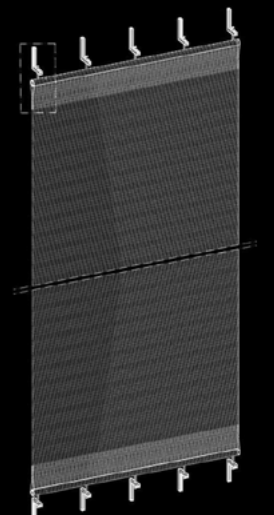
Aluminium
Outdoor



Wood
Indoor



Aluminium
Outdoor



Stainless steel
Outdoor

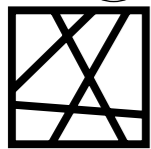
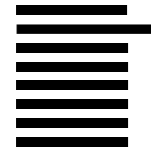

AESTHETIC

**Unique patterns
custom made on your needs**

Pattern: Runners Collections

i-Mesh is produced only by bespoke panels,
custom made on your needs.

Tell us your favourite design in three simple steps:

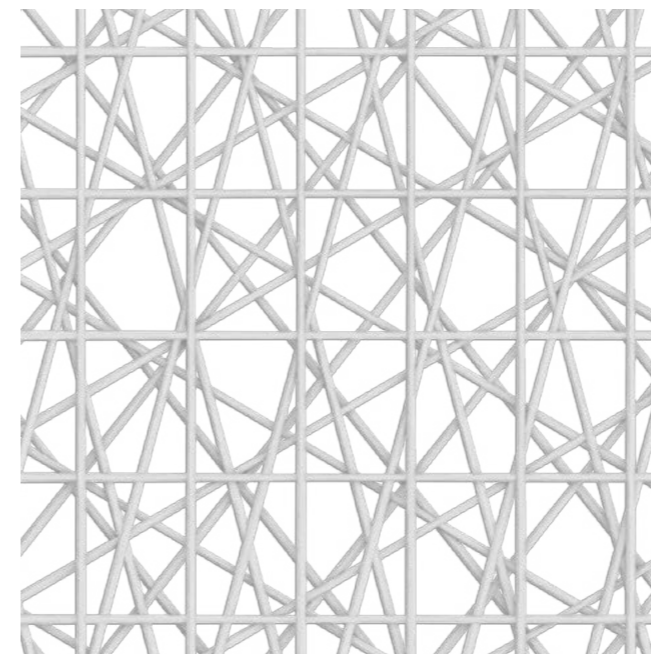
<p>1</p>  <p>Choose the design</p>	<p>First of all, browse through our collection and take the one that suits your needs best. Look carefully at the description, some designs are better than others for specific uses.</p>
<p>3</p>  <p>Choose the colour</p>	<p>We propose six basic colours, the natural colors of the fibers. White, black, gold, copper, brown and champagne: select a wonderful monochrome pattern or an amazing matched one.</p>
<p>2</p>  <p>Choose visual permeability</p>	<p>We are available to suggest you the best possible i-Mesh combination. Transparency or coverage? We can scale the design as you prefer, thicker to create more privacy or emptier to screen less.</p>

Example:

Design: **Morellet** Fiber: **G** Permeability: **1**
= Code: **Morellet G1**

**Partnered with our technical office,
you are free to design unique patterns to
enrich your projects and meet all the special
requirements of your customers.**

**But if time runs out, you can easily choose
your favourite texture from our standard
collections designed by our in-house creative
department.**

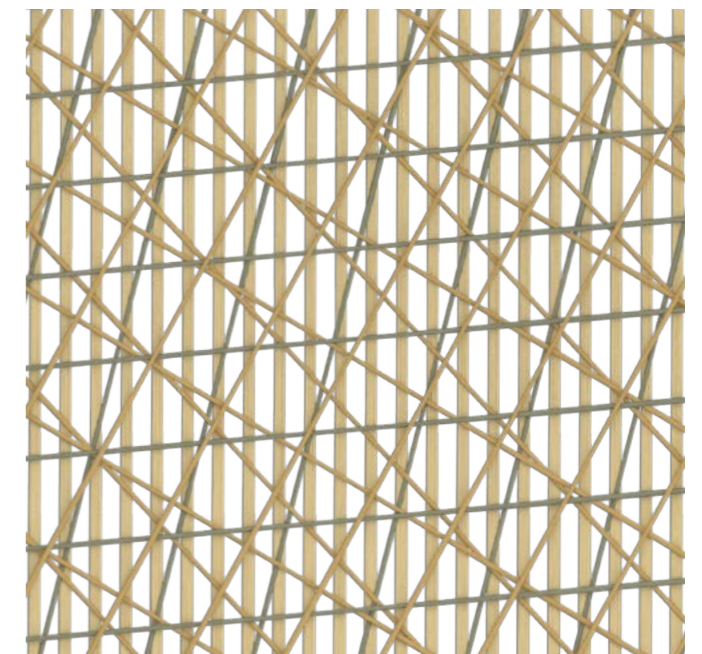


Morellet

The classic one, clearly inspired by the french artist Morellet. It's ideal for panels tensioned in both orthogonal directions or for flat curtains.

C G B T Z V

P: 05,1,2

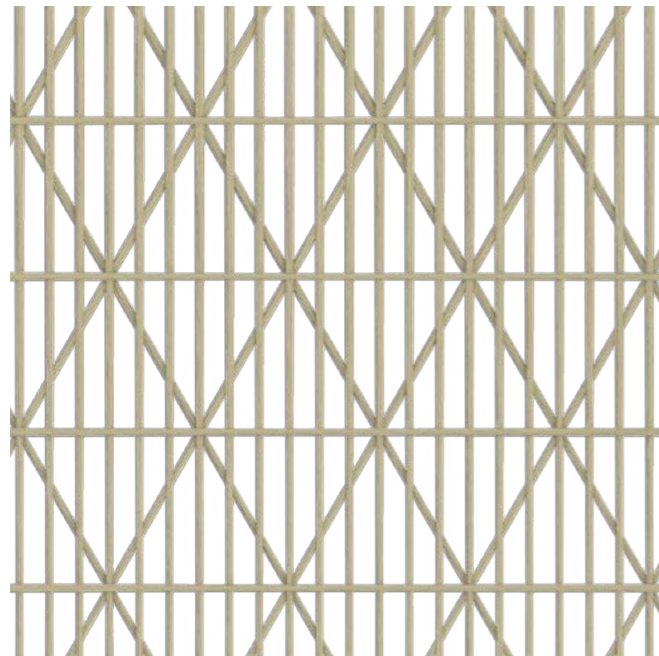


3 Golds

It can be tensioned for panels tensioned in vertical direction, instead could be rolled up in the transversal direction.

G T Z B T Z T B Z V G Z

P: 05,1,2

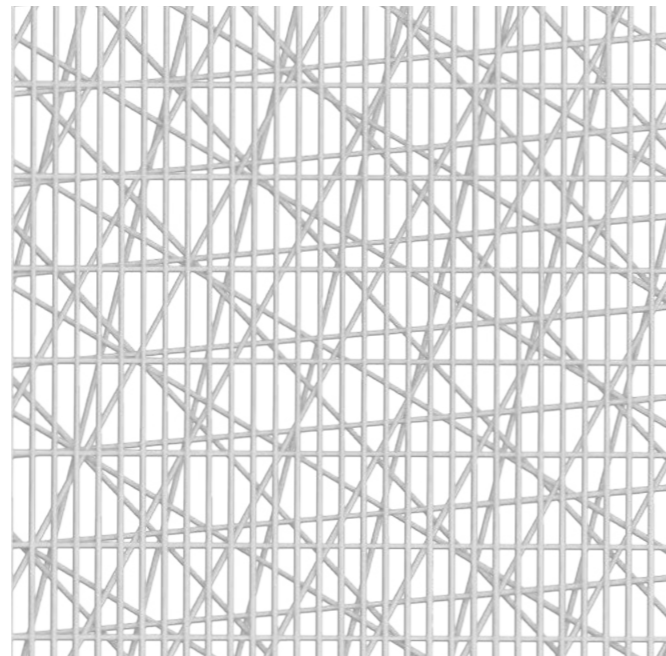


Vivienne

The texture title comes from a request from Vivienne Westwood. Considering its perfect geometry, it's ideal for tensioned facades system.



P: 05,1,2

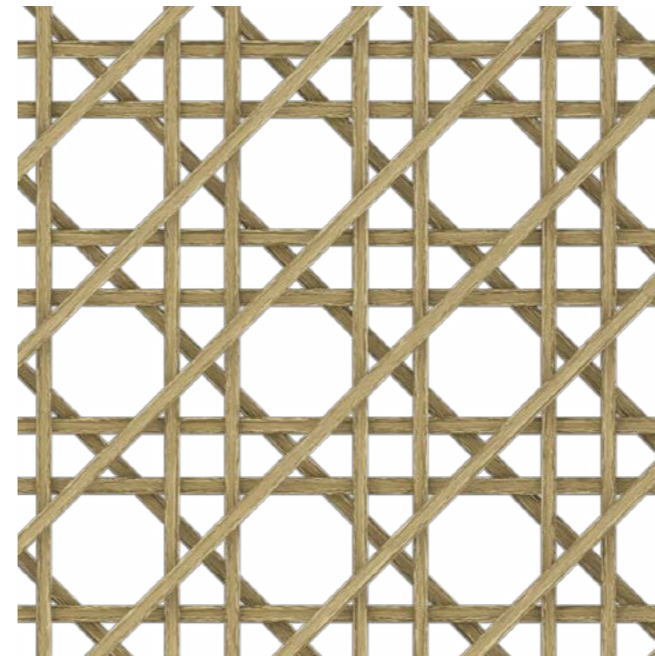


Sunshield

It keeps the performance features of a 3 Golds, being even more see-through. It's ideal as base for adding other patterns upon.



P: 05,1,2



Wien Straw

A great classic of the textures world. Inside the Italian mountain communities, this pattern were made by wicker for the international furniture companies.



P: 05,1,2

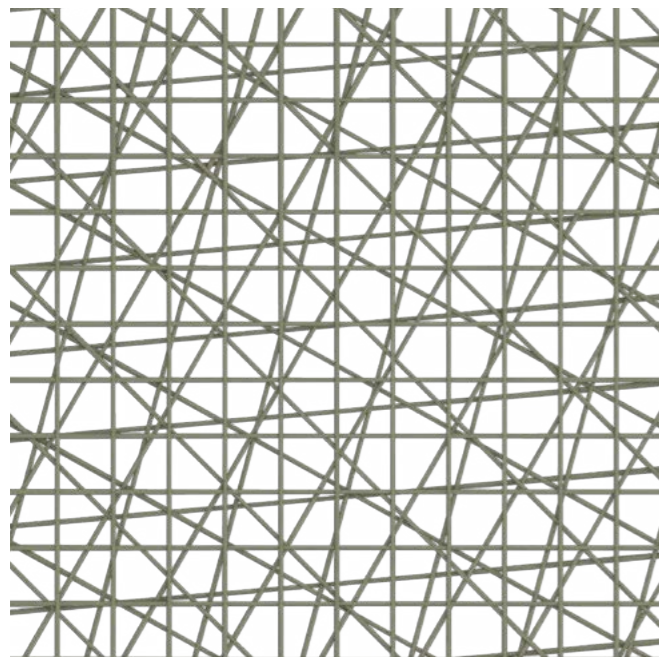


Tartan

Inspired by the british culture, the i-Mesh Tartan is a classic and elegant pattern, which invites designers to play with fiber colors and their geometry.



P: 05,1,2

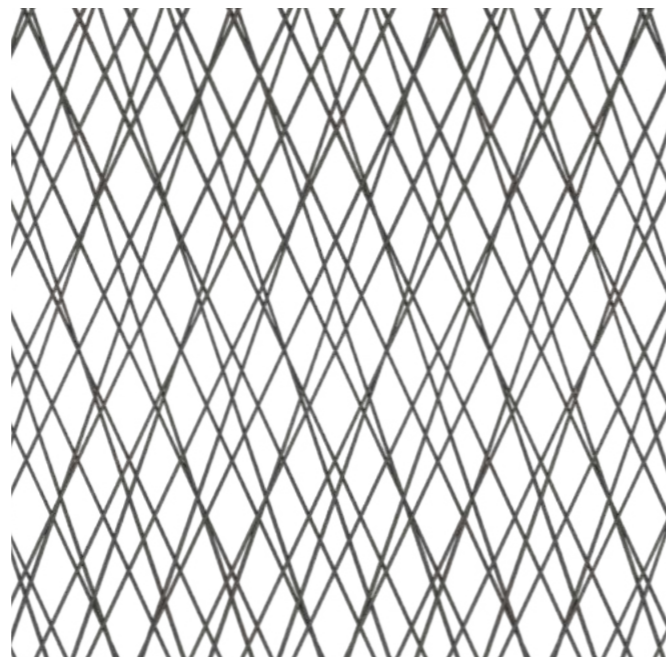


Random

Behind an attractive random chaos, lies a checked pattern which allows to be tensioned in both direction.



P: 05,1,2

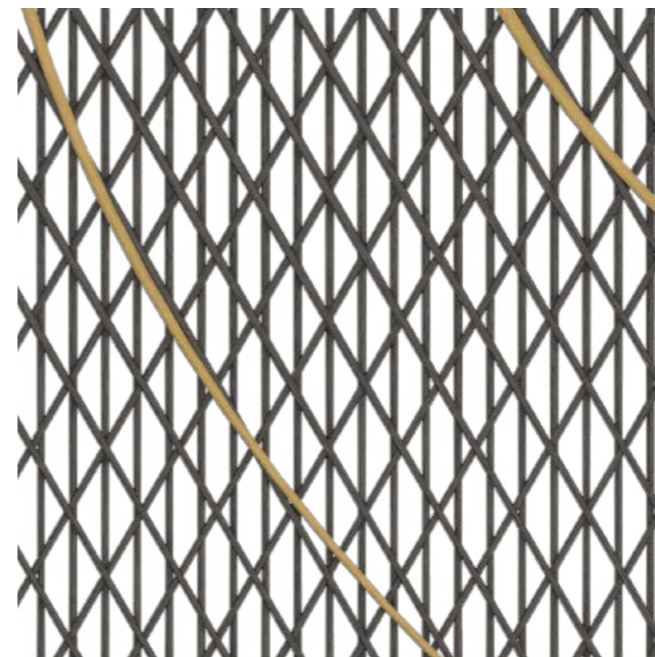


WK

First pattern developed for wavy curtains, designed by Ippolito Fleitz Group for Walter Knoll.



P: 05,1,2

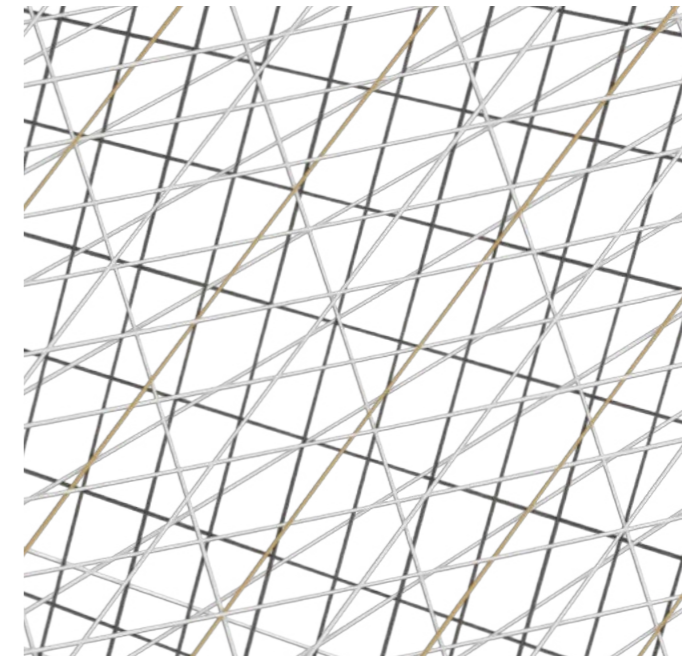


Blocker

This design were thought to satisfy the privacy needs: usually made by carbon, this geometry with low permeability is the most darkening i-Mesh pattern.



P: 05,1,2



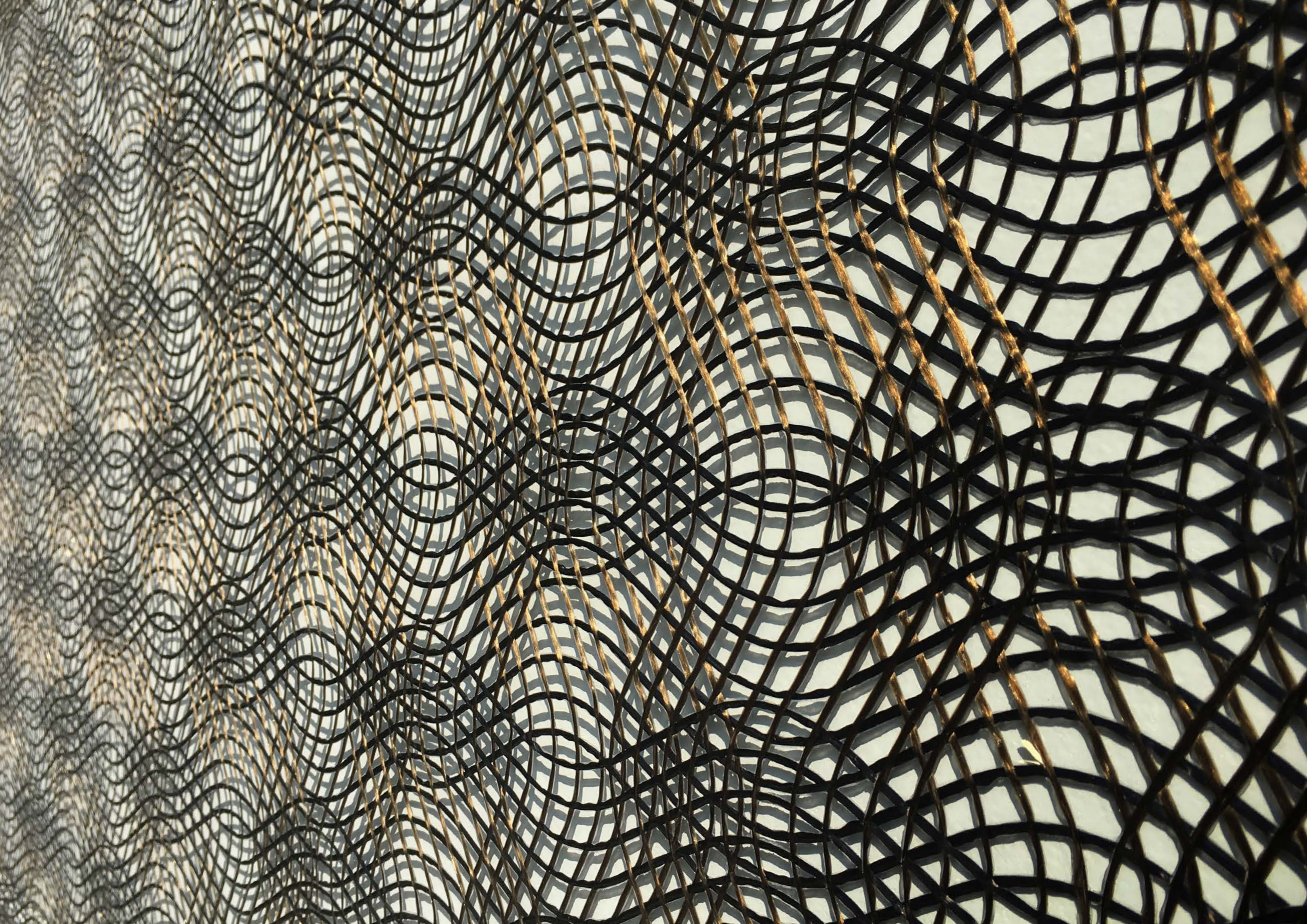
BMW Custom texture

You are free to design unique patterns to enrich your projects and meet all the special requirements of your customers.



P: 05,1,2



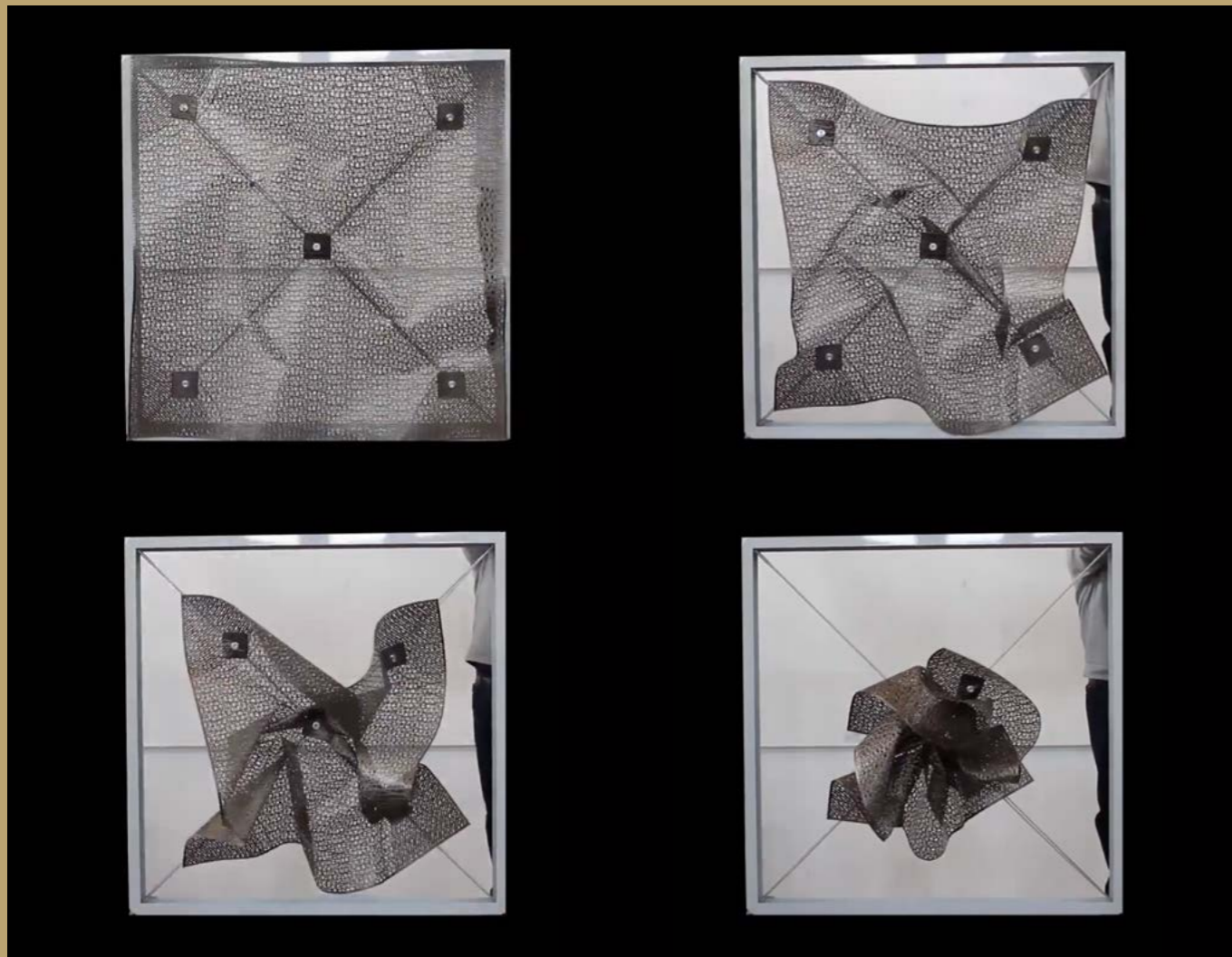


RESEARCH & DEVELOPMENT

Exploring connections
between art & science

Science

We work side by side with the research departments of several Universities to test, analyze and push the i-Mesh's performance boundaries beyond by moving technologies and knowledge from different areas.

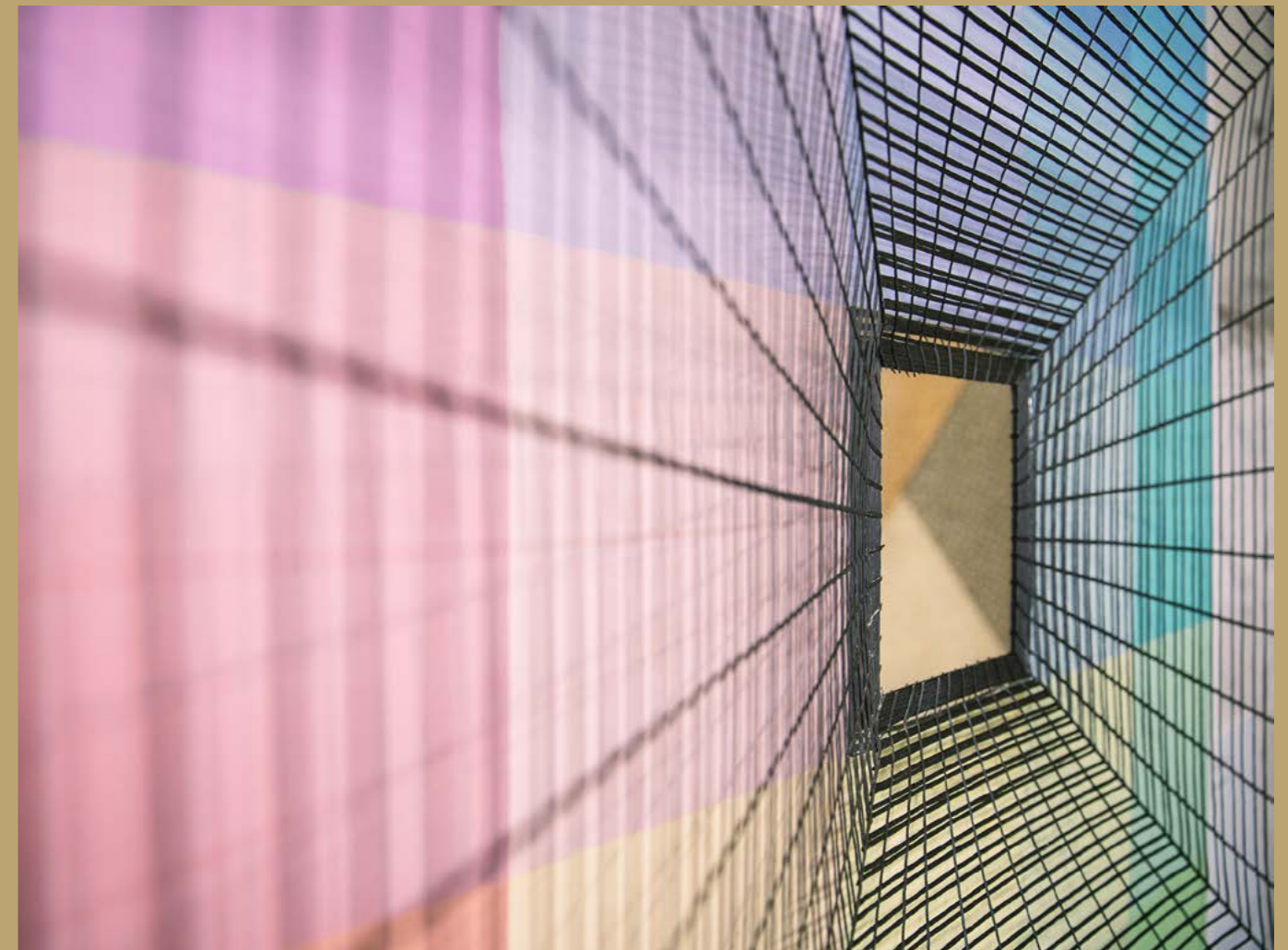


i-Mesh study for facades

in collaboration with the university of Venice IUAV

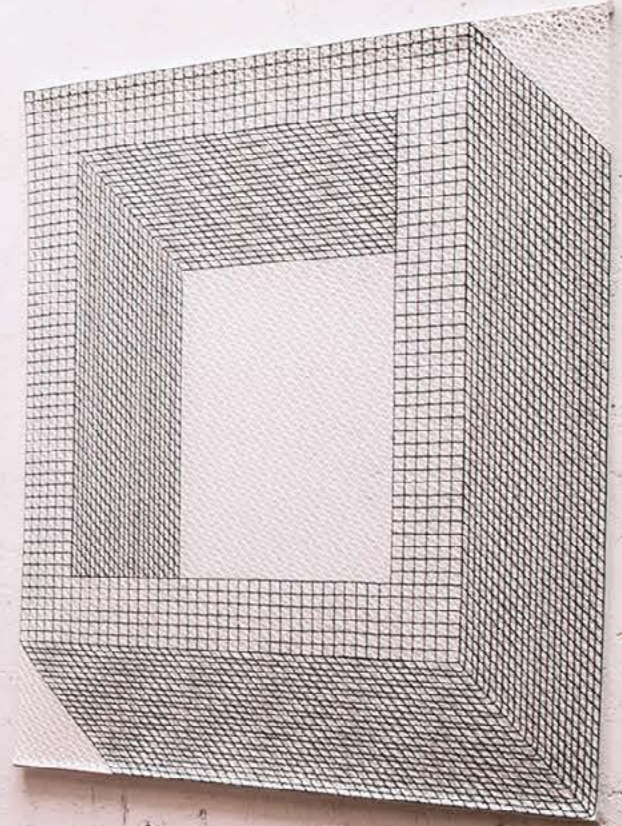
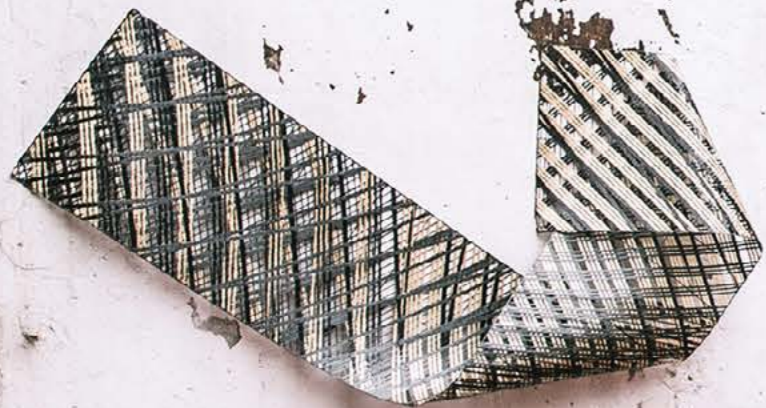
Art

We invite artists and designers to set them free to enjoy playing with i-Mesh geometries and fibers, profiting from their creativity and critical thinking to reflect on unseen uses of our patented technology.



Arazzi Contemporanei

Alberonero - Prospettiva Centrale



Small informational card near the left wall artwork.

Small informational card near the right wall artwork.



Arazzi Contemporanei

Migliore + Servetto Architects - Shades BW + R"



Arazzi Contemporanei

Migliore + Servetto Architects - Shades BW + R"

constantly evolving

follow us

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www.i-mesh.eu

iM
soft architecture