

# material round-up



**contour**

pg 2-5



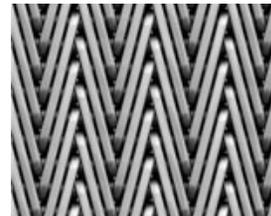
**layers**

pg 6-8



**transparency**

pg 9-11



**weaves**

pg 12-15

### Gouged MDF

Art Diffusion panels are homogeneously colored or plain MDF panels whose surfaces have been carved, or sculpted, into dramatic organic forms with CNC routers. The machining is done by Modular Wood Systems, Interlam's manufacturing sister company

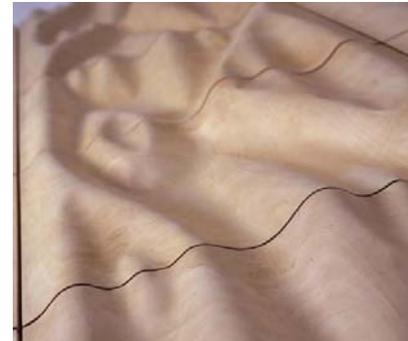
[http://www.interlam-design.com/index.cfm?fuseaction=binders.content&f=specs\\_page1.htm&menu\\_item=artdiffusion](http://www.interlam-design.com/index.cfm?fuseaction=binders.content&f=specs_page1.htm&menu_item=artdiffusion)



### Contoured Plywood

Ply is a wall panel consisting of a solid-wood frame with an undulating birch veneer of 0.4-mm (size 600 x 600 mm) thick plywood. This new material is so thin that it folds nearly as easily as fabric. Thanks to the wavy surface, the element absorbs sound well. Still in development is a version with built-in lighting and panels thin enough to let light pass through.

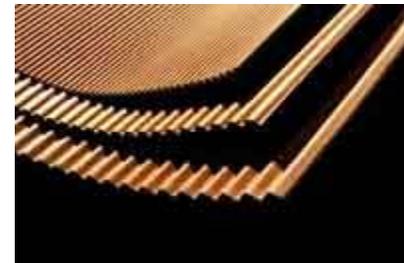
<http://www.showroomfinland.fi/wall/plywallpage.html>



### Corrugated Board

Wellboard is a lightweight corrugated, flexible, durable corrugated board without the admixture of adhesives.

<http://www.well.de/en/en.html>

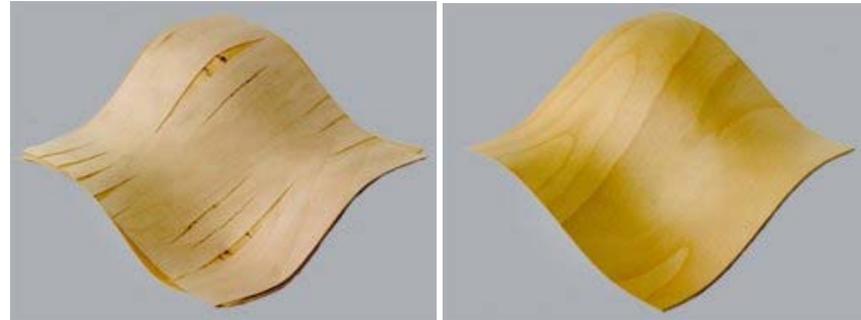


## CONTOUR

**3-D Plywood**

Move over Charles and Ray...this new plywood is capable of compound curves that had been impractical with old technology. The complex 3D shaping of Reholz 3D-veneer is made possible by a mechanical preparation process. Available in a large range of wood species.

<http://www.reholz.de/>

**Mineral Composite Panels**

The feel of the gypsum panel is hard, solid, and ceramic-like. The surface is a fine and smooth, extremely dense rocklike plaster. The weight of the material ranges between 1.5 and 3 lbs. per square foot depending upon the design. modularArts® gypsum panels are composed entirely of nontoxic mineral and do not off-gas VOC's like plastics or formaldehyde like many wood composites

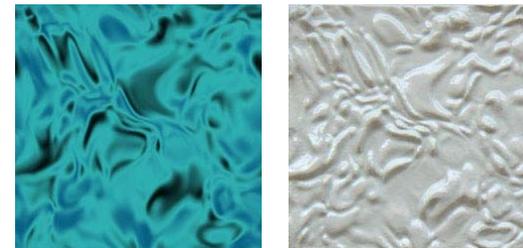
<http://www.modulararts.com/>

**Bas-Relief Tiles From Photographs**

Photo-Form creates custom bas-relief tiles from photographs for the architectural and interiors professions. Photo-Form utilizes a patent pending technology Photo-Cast™ to produce bas-relief tiles for a broad range of applications. Metallic finishes include - Bronze, Brass, Nickel/Silver, Copper, Stainless Steel, and Aluminum

The ceramic wall tile on the left was created from a photograph of water.

<http://www.photo-form.com/>



### Corrugated Acrylic

Deglas WP "Wave" profile sheet is available in an array of surface finishes including smooth, prismatic and textured. The tough, impact modified 3 mm Wave sheet is available in clear, bronze white and pearlized.

<http://www.deglasamericas.com/interior/index.htm>



### Textured Glass

Joel Berman Glass Studios cast glass is produced by firing glass on an inert ceramic mold to a temperature sufficient for the glass to conform to our exclusive sculpted mold surface. The glass must be heated to the softening point without melting the glass. The exact procedure is a copyright process that creates areas of varying depth, relief and texture in the glass.

[http://www.jbermanglass.com/glass/glass\\_textures.html](http://www.jbermanglass.com/glass/glass_textures.html)



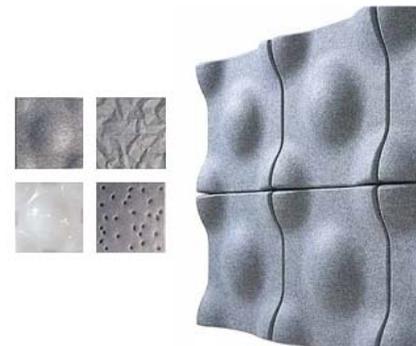
### Soundwave Panel

The undulating wave form of Swell, the original Soundwave panel, helps reduce sound levels by absorbing the mid/high frequency range. The new panel Scrunch, has a craggy surface reminiscent of a mountainous landscape that also absorbs the mid/high frequency range

The panels are made from Recyclable moulded polyester fibre and

PET plastic. They are mounted using self-adhesive Velcro and, unlike more permanent acoustic installations, can easily be moved from one space to another.

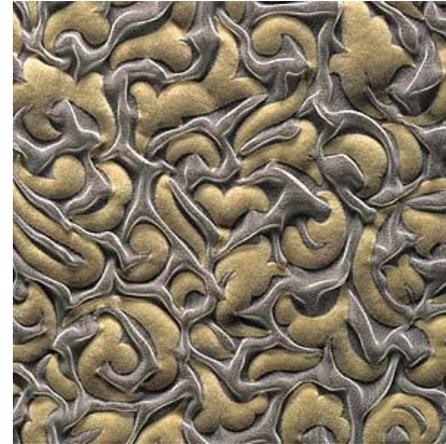
<http://www.theapt.com>



### **Sculpted Fabric**

*Nylon, polyurethane, polyester, and rayon, 44" (111.8 cm) wide. Mfr.: Kimura Senko Co., Ltd., Shiga. Flock printed*

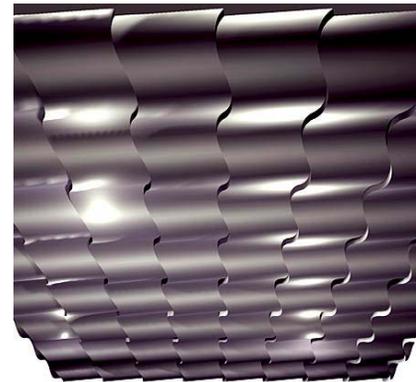
<http://www.moma.org/exhibitions/1998/textiles/sculpted.html>



### **Contoured Metal**

*AlgoRhythm Technologies offers a wide range of curvilinear structures with fluid movements mirroring the flows of nature. Material flows under its own weight and other forces according to morphologic laws that pertain more to fluid motion than to static objects. By freeing the elements of construction from their rigid geometries, AlgoRhythm Technologies unfolds infinite opportunities to model a new architecture. The undulating look of these structures results from the behavior of sheet metal under force. The forms are non-deformational, thereby maintaining the integrity of the metal.*

<http://www.milgo-bufkin.com/algorithm/index.html>



LAYERS

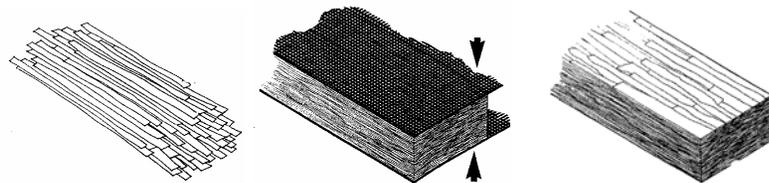
### Timberstrand Edge Grain Panels

"COR ("Conserve Our Resources") is an engineered wood made of timberstrand edge grain. The surface that has the advantages of shrink resistance, strength and stability not normally found in solid wood products. COR is manufactured from structural engineered lumber that utilizes up to 76% of the harvested lumber in each tree. . Floor planks 5 1/2" x 47". Sheets 4'x8'. Various thicknesses"

12" Aspen strands treated with polyurethane resin

Steam-injected and pressurized

All sides smooth-finished



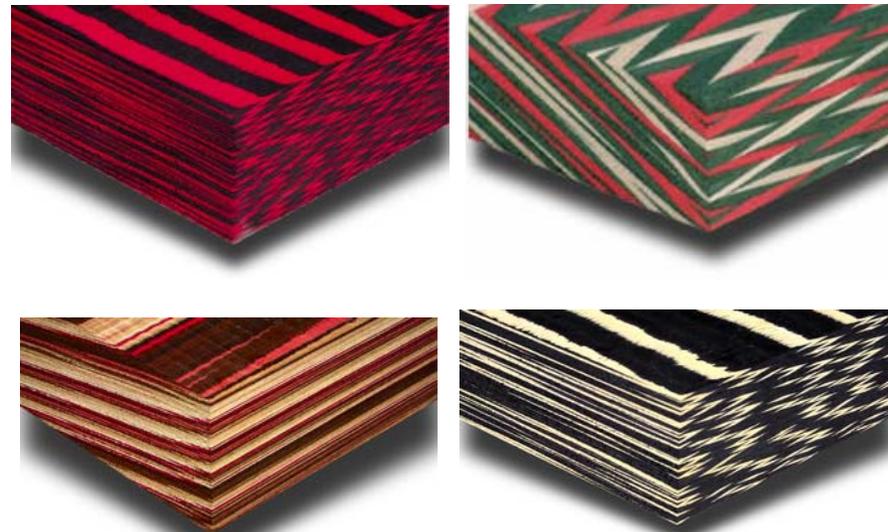
<http://www.corproducts.com/colorreference.html>



### Dyed Veneer Plywood

"COLORPL is produced by first selecting high quality Obeche logs from managed forests in Africa. Once harvested, the trees are rotary peeled and clipped into 25" veneer leaves. They are then dried and stacked in preparation for dyeing. Dyeing is the key to the remarkable color consistency in COLORPLY. The stacked veneers are submerged in a heated, pressurized vat which contains a water soluble dye. Once the dye has completely penetrated the veneer leaves, they are removed and dried. The veneer is now ready for gluing. Adhesive is layered between each leaf of veneer to create a stack. The stack is then laminated in a high pressure press to form a large rectangular block. The block is then sawn into slabs of COLORPLY lumber"

<http://www.colorply.com/Patterns.html>



### Resin & Wood

*“A combination of solid woods and acrylics, the Resin & Wood Collection is a sophisticated surface for vertical and horizontal applications. Material can be customized using a variety of acrylics and hardwoods, including beech, maple, alder, cherry, and walnut. Width of the wood and acrylic strips can be varied “*

<http://www.ravier.fr/english/e03.htm>  
<http://www.piarottotegno.com/>



### Compressed Sorghum Stalk Board

*“Kirei Board provides an environmentally friendly alternative to engineered building materials. It is made from sorghum stalks that are compressed, washed and woven into sheets. Sheets are stacked and heat-pressed with formaldehyde-free adhesive. Available in 3' x 6' sheets and 1'x3' planks in thickness of 3/8", 3/4" and 1 1/4".*

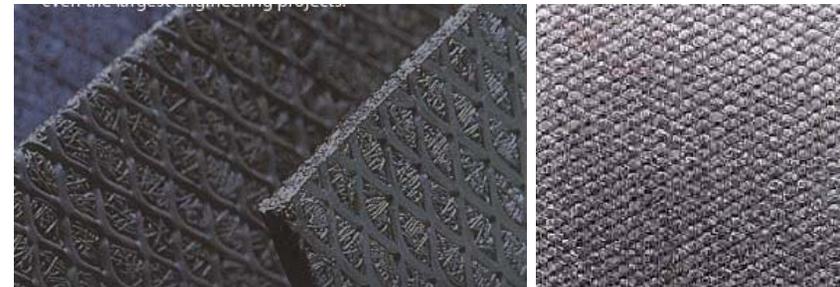
<http://www.kireiusa.com/main.php>



### Sound Absorbing Aluminum Sandwich

*“Poal is composed of non-woven aluminum fibers sandwiched between a metal mesh and rolled into a rigid board. Made from non-woven aluminum fibers with a porosity of approximately 40%, Poal offers superior broadband sound absorption. Poal panels are 100% aluminum and are in part made from recycled aluminum. After years of service Poal panels can be fully recycled”*

<http://www.poal.net/>



LAYERS

### Insulating Glass with Metal Interlayer

“OKATECH is an insulating glass in the intermediate space of which many different designs of wire mesh are integrated as design elements with variable functions.”

“Perforated and folded aluminium foil is sandwiched between two 2 mm float glass screens. The metal is structural and serves as a sun protective and light directing element. A special glue between glass and aluminium is able to compensate the different expansions of the materials. The panels are currently tested as prototypes and show remarkably good results: It can take four times more load than a usual 4 mm glass screen. In case of mechanical impact the material has similar properties like safety glass

[http://www.okalux.de/Okalux\\_2003/englisch/frames\\_e.html](http://www.okalux.de/Okalux_2003/englisch/frames_e.html)



### Corrugated Aluminum

“Metawell is manufactured in a continuous production process using a hot-melt glue to fix one or two thin metal sheets out of aluminium to a corrugated thin aluminium core. Its unique structure makes Metawell a very light but nevertheless extremely rigid sandwich panel which, particularly when used in big formats, allows for considerable weight savings.”

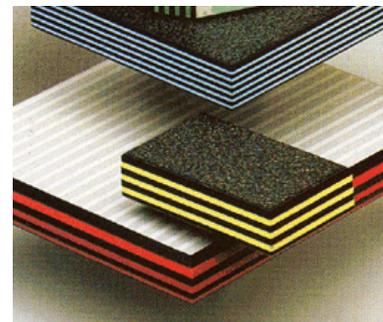
[http://www.metawell.com/metawell/e\\_prod.shtml](http://www.metawell.com/metawell/e_prod.shtml)



### Straticolor

“A self-supporting composite which, when cut in section, reveals a succession of coloured layers. The edges and engraving possibilities present new and exciting attractions.”

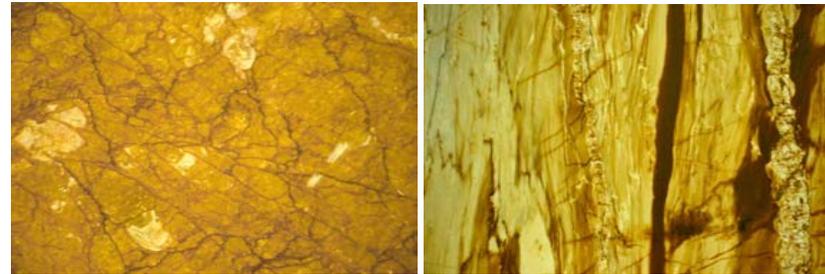
<http://www.abet-laminati.it/english/>  
<http://www.abet-laminati.it/english/collezioni/strati.htm>



### Translucent Stone

*With a total thickness of 3-6mm, these thin stone make marble and onyx panels extremely translucent. By playing with natural or artificial light the designer can achieve unusual visual effects and highlight the veining.*

[http://www.fiberstone.com/anglais/mat\\_transl/mat\\_trans.html](http://www.fiberstone.com/anglais/mat_transl/mat_trans.html)



### Light Transmitting Concrete

*Litracon is a concrete stone-block that turns out to be light conducting through its embedded glass fibers. From one side to the other light passes the stone with-out any significant loss and illuminates the darker side of the stone. Shadows are transmitted and shown in precise shapes on the opposite surface.*

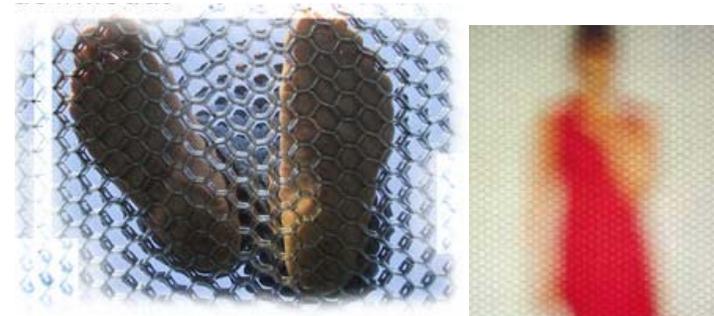
[http://www.litracon.hu/menu\\_en.htm](http://www.litracon.hu/menu_en.htm)



### Glass Flooring and Partitions

*Significantly stronger than a conventional glass B-Clear glass can withstand the weight of the heaviest objects. In the unlikely event that the glass should fracture, the composite structure retains the glass pieces, preventing the kind of shattering to which ordinary glass is prone and reducing the risk of injury.*

<http://www.cellbond.com/architecture/architecture.asp>



### Self Cleaning Glass

*Its unique dual-action uses the forces of nature to help keep the glass free from organic dirt Pilkington Activ is an ordinary glass with a special surface on the outside that has the unique dual-action. Firstly, using daylight, it breaks down any 'organic' dirt deposits on the surface of the glass, such as bird droppings or tree sap. Secondly, when it rains the rainwater 'sheets' down the glass surface to wash the loosened dirt particles away, ensuring that even the most inaccessible glass stays clean. Bright sunlight is not necessary for the glass to function, it works even on cloudy days and even during the night.*

[http://www.activglass.com/index\\_eng.htm](http://www.activglass.com/index_eng.htm)



### Fire Rated Glass Floors

*Liteflam is the worlds first fire-rated glass floor system available in 30/30, 60/60 and 90/90 minute versions and in sizes up to 1.5m x 1.5m square and 1m x 2m rectangular. The system can combine panels to give maximum spans of 4 meters by unlimited length, and was tested whilst supporting a distributed loading of 4.0KN/m2.*

<http://www.landmarkglass.com/index.cfm?page=17>

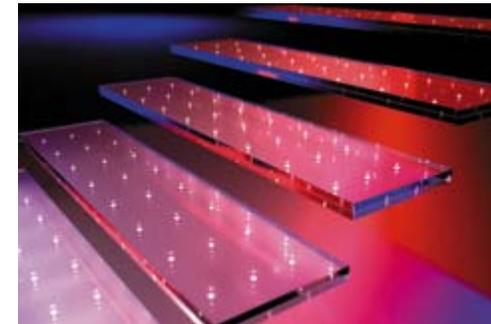


### Laminated Glass with Embedded LED's

*Light Points and Power Glass combine LEDs with wireless electrical energy and two layers of glass, all sealed with cast resin instead of PVB. Light spots seem to float with this new technology, going along with completely transparency.*

[http://www.glas-platz.de/\\_index.htm](http://www.glas-platz.de/_index.htm)

<http://www.us.schott.com/architecture/english/lightsolutions/lightpoints.html>



### Lumisty - Opacity Changing film for Glass

A film-to-glass product, "Lumisty" creates a dramatic effect by gradually changing from transparent to translucent as one's viewing angle changes. Walking past a window with Lumisty applied, a perfectly clear, transparent glass surface becomes, in a step or two, partially fogged. Two or three steps later, the same window is completely fogged. Walk backward or forward, and it's clear again. As the viewer's angle shifts, so does the transparency or translucency of the film.

<http://www.lumistyfilm.com/lumisty.htm>



### Color-changing Films

Dichrolam is the first laminate in glass and plastic sheet that incorporates dichroic, color-changing films that actually change color in full spectrum color shifts according to viewing angle

<http://www.johnblazydesigns.com/index.asp>



### Self Adjusting Glazing Panel

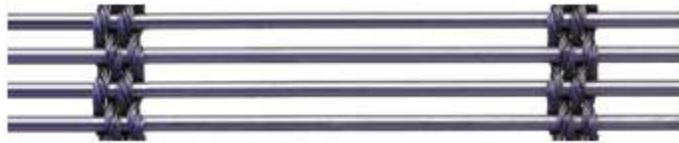
Controlite panels consist of proprietary translucent half-cylinder Rota-blades built into translucent, light-transmitting polycarbonate panels. When fully open, they allow for a maximum of 60 percent light transmission; when closed, they allow a minimum of 6 percent. The angle of the Rota-blades is completely adjustable through a manual, motorized, or a fully automated system that works automatically to maintain the desired light level throughout the day

<http://www.cpidaylighting.com/control.html>



### Woven metal

"Metal wire cloth and meshes were initially developed for technical purposes. Often made of stainless steel wires they became a commodity for precision filtering and sieving. Durability, chemical resistance, light-weight and flexibility are the dominant properties. Similar to common textiles, metal fabrics are manufactured on looms. The surface structure and overall visual appearance of metal fabrics are determined by the type of weave and the wire dimensions."

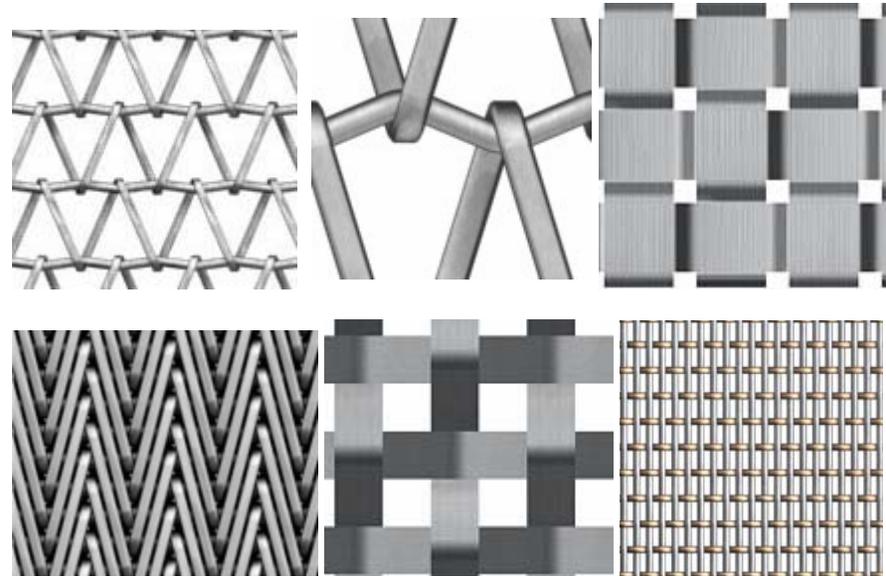


<http://www.architecturalmesh.com>

<http://www.io-metal.com/>

<http://www.gkdmetalfabrics.com/>

<http://www.cascadecoil.com/>



### Woven Wood Panels

"Woven panels are crafted from hand-weaving strips of wood veneer, bamboo or straw. Crossing the veneer strips allows light to play on the reflections in the wood creating a luminous, dynamic effect. Veneers can be laser cut in any pattern and laminated to substrate. For an open weave, the width of woven wood strips can also be spaced or varied, to produce an unbacked panel. Combinations of several varieties and colors of wood can be chosen from 120 available veneers."



<http://www.marotte.fr/english/index.asp?Indexid=119>

<http://raleo.com/home.shtml>

### Shaped Oval Surfacing

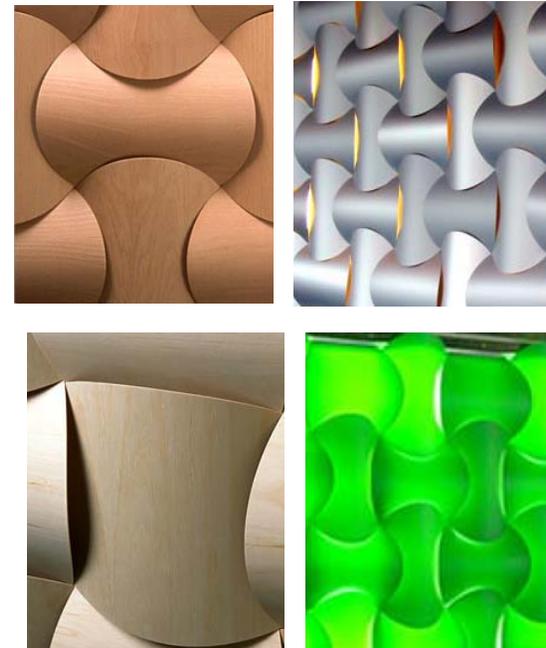
*“The Wovin Wall System consists of a lightweight mounting grid which can be fixed to any wall or ceiling surface. The Wovin tiles are clipped into this grid in alternating directions to create the distinctive woven pattern. Materials available include wood, translucent polypropylene, plastic laminate and metal.*

*Available in 2 oval sizes:*

*The Standard tile shape creates a distinctive woven pattern with subtle curves, and a more open effect than the Oval tile. This openness is effective when opaque tiles are backlit, as the light spills out onto the surrounding tiles*

*The Oval tile shape is more elongated, creating more pronounced curves, and closing the gap between adjacent tiles. This tile is used for printed images, and is particularly effective when translucent tiles are backlit.”*

<http://www.wovinwall.com/>



### LED Embedded Fabric

*“LUME is a new lightweight, LED embedded fabric that offers safe, energy efficient light in a versatile form factor. Delivering broad, even light from an ultra-thin and flexible source, LUME is a true illumination replacement.*

*While providing all the environmental and cost benefits of high-brightness LEDs, LUME is an opportunity for designers, product developers and architects to conceive of lighting in new ways. Unlike traditional lighting that is fixed, fragile and runs very hot, LUME fabrics are extremely durable, run relatively cool and can be touched, stretched, twisted, gathered, rolled and custom-tailored for a variety of applications.*

*With an array of custom options (re: shape, size, thickness, material finish, density of illumination, color, pattern and programmability, etc...), the design possibilities are endless”*

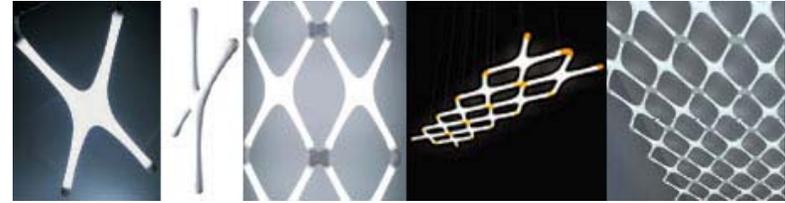
<http://savini.media.mit.edu/~thd/>



### Modular lighting system by Ross Lovegrove.

"There's more to the Yamagiwa:Lovegrove collaboration. SystemX is an X-shaped lighting module that can be interconnected with other SystemX modules to create lighting structures. The product can be specified for both private and public use, beginning with small dimmable configurations for above the dining table to large open expanses that can create zones of different temperatures of light in collective or singular modules."

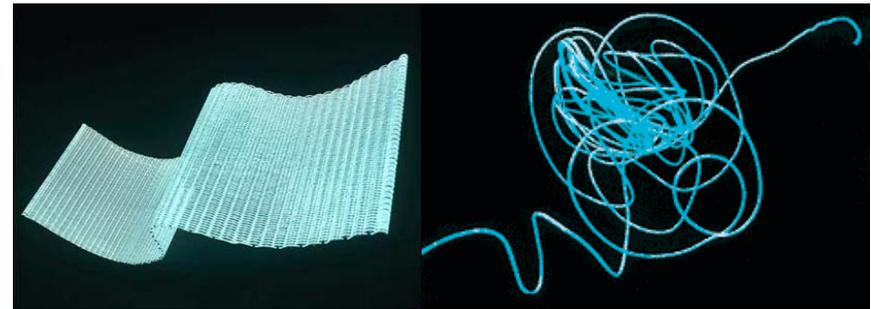
[http://www.yamagiwa.co.jp/interior/design\\_news/salone2005/release/release05.html](http://www.yamagiwa.co.jp/interior/design_news/salone2005/release/release05.html)



### Woven Electro Luminescent (EL) Wire

"EL film is an active, light-generating, extremely thin and lightweight material. The highly flexible luminous wires and various films can be cut to size with a pair of scissors. EL Fibers can be stretched dead straight or wound up on a coil."

<http://www.lightandmotion.at/eng-produkte.html>  
<http://voon-benson.com/html/studiop.htm>



### Wire Micromesh

"The weave, the mode of intertwining the warp and weft wires, determines the texture of each micromesh; it may be plain, twill, herringbone twill, broken twill, ribbed twill, etc. The twill weave creates an effect of diagonal ribs where the wires cross, the herringbone generates zigzag lines, the ribbed twill produces a fabric with diagonal ribs with a face and a reverse side, the broken twill comprises successive segments of parallel lines that form alternating squares. As in the case of satin when the weft is not conspicuous, the surface is smooth and gives a silky appearance which shimmers according to the viewing angle. And the percentage open area, the ratio of the volume of the apertures to the total volume."

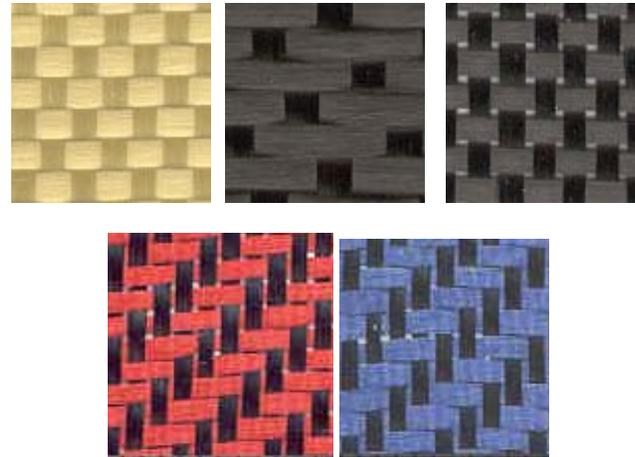
[http://www.archimetal.com/british/matieres/cadres\\_matieres.htm](http://www.archimetal.com/british/matieres/cadres_matieres.htm)



### Kevlar, Carbon Fiber Fabrics and Panels

*“Kevlar was developed in the early 1960’s by Dupont. Assuming the same weight, Kevlar is literally five times stronger than steel. Kevlar fibers also have 43 percent less density than fiberglass. Originally developed to replace steel tire belts, it is an aramid with high strength and notable heat resistance. Carbon fiber cloth is an extremely light, strong, composite material. carbon fiber is appealing because it is strong without adding significant weight”*

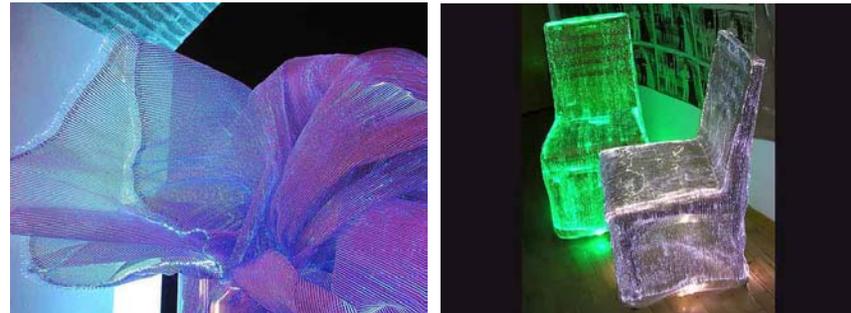
<https://www.fiberglasswarehouse.com/>  
<http://www.shopmaninc.com/hybrids.html>



### LED Fabric

*“Luminex combines technology and electronics with fabrics, using high efficient LEDs to spread light safely at very low voltages (3,6V) The idea was to “weave the light” with optic fibres generally not used in the textile manufacturing. In effect, this kind of fibres is not stretchable, elastic and soft, all features necessary to be used with looms. So it has been compulsory to modify both the fibres and the looms in order to overcome these difficulties.”*

<http://www.luminex.it>



### Electric Plaid - Pattern Changing Textile

*“IFM’s Electric Plaid is a unique textile display technology and design material. Electric Plaid combines hand woven electronic circuits, color-change inks and drive electronics, to add time and motion to textile patterns and design. Patterns change color slowly over time, to give you information or change the decor of the room. Electric Plaid is a reflective (it doesn’t light up!) color-change mediu. Each module has 8 color change-areas or woven yarns Each woven pixel has 4-8 electronic yarns that create a pattern.”*

<http://www.ifmachines.com/eplaid.html>

